Teamworking in Two Dissimilar Secondary Comprehensive Schools: An Account of Team Roles, Interaction and interdependence in Action

Thesis

UNRESTRICTED.

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DOCTOR OF EDUCATION (EdD)

September 2004

DATE of SUBMISSION: SEPT 2004
DATE of AWARD: APRIL 2005

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This study found that, although school cultures assumed that teachers would work in a team structure, both teachers and their leaders seemed either not to have a conceptual understanding of their team roles, or considered it unimportant in the pursuance of their day to day work. Interactions in meetings did not always reflect teachers' self-perceived team roles, and interdependence tended to be predominantly task-focussed. The study revealed that the quality and extent of teamworking was problematic in many respects. The practice of teamworking in the school contexts studied showed gaps between the prescription and advice proffered by management literature, and the reality of teamworking in key areas of team management such as leadership, goal management, vision making and conflict recognition/resolution.

Acknowledgements

I am especially grateful to my Tutor-Supervisor, Doctor Christine Wise, whose time and patience, support and encouragement made the completion of this thesis possible. I will always cherish your quiet, confident belief in my ability to succeed.

Without mentioning anyone by name, I would like to thank the large number of friends and colleagues who contributed their time, advice, ideas and criticisms to the development of this study. While the work benefited immeasurably from your input, any flaws remain mine.

I have to acknowledge the support of the two men in my life, Ndenko and Alain, for being there for me, for putting up with my mood swings as well as with months of studied neglect. Your caring distractions made this thesis so much slower to complete but kept me sane.

The last word of acknowledgement delightedly goes to my father, I. N. Asong, for always setting the bar ever so slightly beyond my reach. This research is one of the by-products of that restless curiosity which you passed on to me. I hope we are quits now. Thank you for the faith, and for every thing.

Thank you, all of you.

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INTRODUCTION

Section 1 provides the background information on the research contexts under study. It sets out the hypothesis on which the research is based and lays down the boundaries which circumscribe its scope. The objectives of the study and the key questions which it will address are enunciated; attached to which is an initial mapping of the data collection methods and the main theoretical concepts which inform the pursuance of the key questions within the study. In this section, the theoretical assumptions subsumed within the discourse of teams and teamworking - the focus of the study - are made evident, as are the possible limitations which the use of an embedded case study design may entail when researching contextually dissimilar schools.

1.1 Background Information

This study is an account of teamworking practices in two secondary comprehensive schools. In this study, teamworking is seen as denoting the ways in which team members cooperate, interact and depend on each other in the pursuance of their collective goals (see section 2.4). This study observes four middle level teams at work during meetings, and scrutinizes the deployment of team roles, patterns of team interactions and degrees of interdependence in two dissimilar secondary schools; where one (School A) is undergoing cultural and structural change resulting from a complete change of the Senior Management Team and the other (School B), is seeking to embed recent major structural changes. The time frame within which the case studies are conducted is subsequent, as the project uses data collected first from School A and then a year later, from School B. Within each school context, data collection is continuous over one academic year.

The resulting dual-case research makes a comparative analytical approach possible and alleviates some of the difficulties inherent in attempting generalisations from findings gained from research in a singular context which, like School A, may be atypical.

1.1.1 Research Context 1 - School A

School A is a mixed inner-city comprehensive with a roll of about 1,300. More than 70% of the pupils receive free school meals. Free school meal statistics are used nationally as a socio-economic indicator. This figure is well above the national average. With sixty-five different mother tongues spoken, upwards of 60% of pupils qualify for EMAG[1] funding, as they have English as their second language. A breakdown of the ethnicity of the pupils shows that 40% are Turkish or Kurdish, 23% White UK and/or European, 30% African and/or African Caribbean and 7% other. The teacher population reflects a similar ethnic diversity. Reading and writing standards on entry for the average pupil is well below the national average. A significant proportion of the families live in temporary or government subsidised accommodation, partly accounting for a high 30% pupil turnover from years 7 to 11. As most parents have little knowledge of English, meaningful parental involvement with school is difficult (School HMI Report, 2000).

The school is within the catchments of ten feeder primary schools, which typically attract pupils from immigrant and working class backgrounds, most of whom did not make School A their first choice at primary/secondary transfer. More than 20% of the roll (academic year 2000-2001) is admitted casually and 45% are on the register of Special Educational Needs[2]. The school has consequently been acknowledged both by Ofsted and the national press to be atypical in many respects. At the time of the study, School A had 90 teachers, 14% of whom were on temporary contracts. The school had a local reputation for being 'tough', and this may explain the high staff turn-over rates of more

[1] Ethnic Minority Achievement Grant
[2] Source: School SEN Register 2001/2002

than 20% annually[3]. With such vital statistics, School A presented real management challenges of which building and operating teams was just one of several. In 2000, Ofsted placed the school under 'serious weaknesses' on account of ineffective management systems which tolerated poor pupil behaviour, low attendance figures and weak pupil attainment at public examinations (less than 18% A*-C at GCSEs). This made it one of only two schools in England and Wales at that time, in which the response of the LEA was to proceed with a complete overhaul of the Senior Management Team.

The actions of the new leadership group as it worked to secure improvement, provides the cultural and political backdrop within which team-working is studied in this project. School A has since been given a clean bill of health on account of the improvements in both standards and management systems (School A, Ofsted Report, 2002).

1.1.2 Research Context 2 - School B

School B is a large County-funded mixed 11-19 community comprehensive, situated in a small estuary town in the South East of England. It is a twin-site school with the two sites 1 mile apart. The school has approximately 1,650 pupils split almost equally between boys and girls. It has only become oversubscribed in the past year (2002-2003), a fact which is surprising given that this is a one-school town, but much less so if the number of selective schools in the county are taken into account. The school's population is stable and pupil turnover is low. Very few pupils in the school (less than 1.5%) come from ethnic minority backgrounds, reflecting the number in the local community. About 12% of pupils have special educational needs of which behavioural difficulties alone account for 0.25% of the school population[4]. At the last count[5], the percentage of pupils eligible for free school meals was 11.7% and rising, but this was still well below the national average. The area served by the school is socio-economically very mixed.

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[3]. Based on an average of staff departures between September 1996 and Dec 2000
[4] School Ofsted Report, June 1999
[5] Ofsted Panda Report 2003

In its last inspection (1999), the school's management was judged sound, pupil behaviour was found to be satisfactory, but attendance and certain aspects of teaching and learning needed addressing. As a result, senior management restructured middle management and the shape of the school day in order to facilitate the implementation of the school improvement plan, whose main priorities were set by School Governors to be Teaching and Learning, and the development of the Sixth Form Centre, *inter alia.* In the past three years, School B's Key Stage 4 and Key Stage 5 results have improved steadily. The same could not be said of Key Stage 3 (in 2002/3). Unlike in School A, almost every pupil arrives School B with a battery of prior attainment statistics at age 11.

Compared to School A, staffing in School B is less problematic. Although the rate of teacher turn-over is increasing, most teachers leave to pursue promotions elsewhere. In spite of current teacher shortages in key areas of the curriculum such as Mathematics and Science in the south-east of England, the school is more often than not, fully staffed; needing just three regularly employed teachers on a part time contract to ensure cover for staff absences. Teachers are time-tabled to teach on both school sites, with the majority of teachers commuting between sites during the school week. The School has won the DfES Schools Achievement Award three years in a row. In its most recent Investment in People Report (2002-2003), staff morale was judged to be high, attesting to staff familiarity with whole school improvement objectives and satisfaction with their professional development. While School B's community ethos is very strong, the distance between the two sites complicates communication. What is evident from the above is that School A and School B are dissimilar in many respects.

It will be the thrust of this study to see how these two very dissimilar schools use teamworking to achieve their respective goals.

1.2 Project Hypothesis, Assumptions and Limitations

Schools, like most organizations today are under a great deal of pressure to change. Huczynski and Buchanan (2001:590) have identified 16 possible 'triggers of change' to

which organizations' managers and staff must respond or face the possibility of non-viability. These could be internally generated (e.g. low performance and morale - triggering job redesign, the appointment of new senior managers and top management teams, a recognition of problems - triggering the reallocation of responsibilities, *inter alia*), or externally imposed (e.g. developments in technology and new materials, new legislation and government policies, and, changes in social and cultural values, *inter alia*). In seeking to make sense of how organizations 'proact' on or react to these changes, this study seeks theoretical coherence from a constellation of organizational management concepts which view schools as organic 'open' systems (Hanna, 1997; Ogawa and Bossert, 1995; Whitaker, 1993), which are essentially responsive to change.

Open systems theories view organizations as an arrangement of inter-related entities which have boundaries, but which are dependent on their environment for survival (Hanna, 1988). Organizations which are open systems have distinctive characteristics which include goals, inputs, throughput and output, and deviation corrective feedback. This study is situated within the throughput domain - expressed in terms of core processes; themselves subdivided into task, individual and group core processes. The proposition being made in this study is this that, because of this essentially systemic (Ogawa and Bossert 1995:10) quality of organizations, an examination of dynamic interactions (Hanna 1997:16) at any level of the organization will lead to insights into how the organization as a whole achieves its goals.

According to Olroyd and Hall (1991) organizational dynamics can be operationalized through three distinct, though interrelated levels of analysis, the individual, the group and the organisational levels. These distinctions have been used before in research on the effects of interdependence in group work within organisations (Campion et al, 1996; Van der Vegt and Van de Vliert, 2001). They are heuristic conveniences aimed at facilitating analysis and understanding, clarifying the fact that data for this project has been collected at the intermediate group level and that its findings and analysis will involve a cross-pollination between the individual and organisational levels of analysis.

This study therefore hinges on the premise that, as people are the most important resource of organizations, understanding processes within groups of people - say in terms of group/team functioning, and of movement in salient team quality (*viz.*; composition, roles, relationships, interactions and tasks (Barrett-Lennard, 1975) - will necessarily provide insights into how teams work within organizations and how teamworking can be evaluated (Blake and Mouton, 1975; Hargreaves, 1997). Subsumed within this hypothesis, are assumptions about the effects of organizational culture(s) (Meyerson and Martin, 1987:31) on individual and group behaviour and actions.

A possible limitation of the study could be the fact that because it is conducted as a dual-case embedded study (Yin, 1984:147) of two dissimilar schools, sometimes data is so context-specific to one school, that correlations to the other, do not always appear. Furthermore, given that the research contexts are two which have their own distinctive cultures, structures and politics, the study contains findings that are not easily generalizable to other contexts without some adaptation. Whether a case study should aspire to generalizability as a source of validity is an issue which will be discussed in section 3.

1.3 Research Objectives and Key Questions

This project is a short span longitudinal mainly observation-based study, which examines how four core operating groups within two schools interact and co-operate over one academic year. Using comparisons of variations in the team-working processes of the types of groups involved (i.e. one pastoral, one curriculum and two subject based teams) and between the two schools, the project proceeds from 'fixed' group specific data such as type, structure, size and composition, to analyse 'fluid' processes such as interdependence, role deployment, leadership and conflict management and resolution, to evince a picture of how teams interact and co-operate in natural contexts such as schools. The study investigates the gaps which may exist between teamworking as described in some types of team management literature and actual teamworking praxis as seen in schools. The research thus addresses the following key research questions

- How do teams and their leaders understand their roles?
- How are these roles deployed in action?
- What tasks and processes identify the groups as 'teams'?
- How do team members interact?
- What factors in the schools' organizational contexts (culture(s), structure(s) and politics) work for or militate against effective teamworking?

Table 1.1 below shows how the key questions of this study relate to its methods of data collection and to the main conceptual themes which inform the research.

Project Key Question	Data Collection Methods	Related Conceptual Themes
How do teams and their leaders understand their roles?	- The Belbin Team Role Self Perception Inventory. - Five minute interviews. - Field notes as diary entries.	- Team roles versus functional roles. - Self-perception. - Leadership theory.
How are these roles deployed in action?	- Recorded observations. - Five-minute interviews. - Field notes.	- The 'Hawthorne Effect' - Group task and outcome interdependence. - Intradependence. - Espoused theories and theories in action
What tasks and processes identify the groups as 'teams'?	- A categorisation of tasks and processes deduced from observations. - Documentary evidence. - Field notes.	- Team interaction theory - Team typology and the nature of joint work. - Teamworking literature.
How do team members interact?	- Recorded observations. - Bales' Interactional Process Analysis. - Grounded theory. - Field notes. - Five minute interviews.	- Interactional dynamics. - Leadership. - Team management. - Conflict management. - Natural versus experiential teamworking contexts.
What factors in the schools' organizational contexts (culture(s), structure and politics) work for or militate against effective teamworking?	- Documentary analysis of the schools' improvements plans. - Field notes. - Grounded Theory. - Deductions from observations.	- Team interdependence - Organizational behaviour (structure, culture and politics). - Ecological frameworks for team effectiveness. - Models of organizational co-ordination.

Table 1.1: Relationship of Research Questions to Data Collection Methods and Conceptual Themes.

1.4 Conclusion

This section has established the focus of this research to be teamworking as it pertains to role deployment, interaction and interdependence within four teams in two schools. It has provided the essence of the theoretical and methodological course which the research pursues. In section 2, existing literature on the relevant conceptual themes are explored and discussed in order to establish the theoretical antecedents of the study, and lay down the conceptual boundaries which the study seeks to extend, challenge or refine. Section 3 presents the methodology of the study as well as the research rationale. The ethical issues surrounding the conduct of this mainly observation-based study are also debated and established. Section 4 develops the findings from the two research contexts. These take the form of quantitative and qualitative data-rich descriptive accounts. In section 5, these findings are scrutinized and analysed in relation to the original key questions and existing research as reviewed in section 2. Section 6 discusses the significance of the research. It enunciates the implications of the findings to its putative audiences amongst which are teachers, school managers and the research community. It also suggests avenues for possible research which may build on the insights developed in this study.

Section 2

Literature Review

Section 2 examines the history of the development of team research and team discourse. It attempts a definition of teamworking by first unpicking the ideational distinctions between teams and groups on the one hand, and then between teams as a social and structural construct within organizations and teamworking as a *modus operandus* within teams, on the other. In this section, existing literature on the key notions of team roles and leadership within teams are reviewed and discussed. The appropriateness of various teamworking models are described and identified for use in analysing data collected from the cases. The literature review reveals a possible gap in contemporary research on teamworking in real educational contexts.

2.1 Team Studies: Historical Development

The theoretical debate on group/teamworking has crystallized around three main constructions of theory-building and research; the experimental, the experiential and the socio-technical 'traditions'. Whilst not exactly chronologically successive, these trends have marked the tensions in, and pointed the directions of research in group and teamwork in organizations in the twentieth century. This section reviews that development, in an attempt to provide some background into the issues and approaches of previous research in the field, and to identify the gaps, conflicts and controversies, which give this study some of its *raison d'être*.

2.1.1 Group Behaviour Theory Building - the Experimental Stage

Compared to other branches of social sciences, the history of group behaviour and group dynamics appears to be relatively recent. The earliest mention of group dynamics appear in what came to be known as the 'Hawthorne Studies' (1927-1933) in the United States, in which Mayo, Roethlisberger and Dickson conducted experimental observational

studies of AT&T factory workers, to study group norms and how group members influenced each other's productivity and output. Their ideas were seminal and their results showed amongst others, that for people working in groups, the motivation for higher output was achieved by more than pay and conditions; that group work comprised more than the sum of individual output and that this was fuelled by the individual's need for recognition and belonging to a social unit. Although the studies were criticized for the possibility of error arising from research subject reactivity - since referred to as the 'Hawthorne Effect'- it has been claimed (Huczinsky and Buchanan, 2001) that the Hawthorne project was the portal to the human relations approach to management.

The Hawthorne project trail-blazed for other sociological studies such as that carried out by Homans (1951) who developed a model for group formation based on contextual factors and Likert (1967), who looked at the effect of work groups on the performance of organizations. In the same tradition, reporting on his experiments on teaching, with a focus on changes in eating patterns, Lewin (1951) adapted the Gestalt[6] theory of psychology, to research individual behaviour in experimental group work. He found that group work was a property of social situation, by which he meant that the creation of a 'group atmosphere', later termed 'syntality' by Cattell (1951), was key to group success. He coined the phrase 'group dynamics' and developed a 'field theoretical' method of experimenting on group behaviour from psychological information, in areas such as decision making and intra-group communication. These notions have been seminal to group studies ever since. Other related studies in the late 1950's and early 1960s still adhered to these psychological experimental roots, though now focussed on smaller, more disparate group-related issues such as conformity and emotional tones (Cartwright and Zander, 1968), or cohesiveness and co-operation (Back, 1973), to name just two.

As with most group psychological research at the time, theoretical hypotheses and models were developed to describe or account for group behaviour and then left to a future generation of researchers to test and/or replicate. The interaction process analysis

[6] A configuration of psychological phenomena so integrated as to constitute a functional unit with properties not derivable from the sum of its parts.

(Bales, 1950a), the notion of sociometric relationships (Moreno, 1953) and Likert's 'Linking Pin' model of group structure are cases in point. Cooper (1975:3) was later to describe the experimental trend of group research as mere:

> [...] armchair speculation. Many of these 'theories' [*sic*] were indeed nothing more than insightful observations about the phenomenon of group interaction, most of which were not easily testable or had enough empirical support.

2.1.2 Group Dynamics - from Experiment to Experiential Observation

The second phase of group related research sought to test and replicate the theories emerging from the experimental epoque. The growth of experiential encounter group work in the late fifties and sixties sought to apply the findings of earlier experimental work to temporary settings such as in organizational development training courses and organizational evaluation exercises. For instance, Argyris and Schon (1974) and Argyris (1975) developed a theory of group learning and action as means of achieving organizational change. This formed the theoretical spring board from which Kolb and Fry (1975) developed the framework for conceptualizing individual differences in learning style; from which Culbert (1975) in turn, evinced his five-stage model for individual and organizational change based on interpersonal, intra personal and group process variables. Other research adopted similarly narrow foci such as the impact of group composition on learning and behaviour (Reddy 1975:187), leadership (Lakin and Constanzo, 1975:205) and role equality (Mann, 1975, 235); all predicated to the T-group context.

With Barrett-Lennard's (1973) schema for analysing intensive sensitivity and T-group processes, the notion of a group as a 'team' made its first appearance in group theory as 'a phenomenal entity for participants with overall characteristics to an observer' (in Cooper, 1975:71) from which group properties could be derived through 'some form of averaging' of interactive episodes and subsystem processes. In a contemporaneous study, Blake and Mouton (1975:103) presented a descriptive model of 'cathartic', 'catalytic',

and 'confrontational' intervention strategies for team engineering which would serve as a basis for organizational change and effectiveness. They found that

> [...] the strategy most likely to result in effective overall *team* work is one that uses sound theory and principles clearly understood by those who interact and co-operate as the basis for increasing effectiveness.
>
> (1975:128)

These appear to be amongst the earliest mention of 'teams' as they have now come to be understood.

The single most distinctive characteristic of these studies was the fact that, although they did generate insights into putative group behavioural features, they were based on theoretical applications of artificially set up groups in non-natural T-group and experiential contexts. It is therefore possible to argue that their findings, though insightful, were verisimilar rather than realistic. Given the multiplicity and the flux in the status of group personality over time which is typical of long-term teamworking in natural contexts, the shortcomings of this approach became self-evident. The fact was that the experiential research approach was essentially inductive, making it possible to project from what was learned from T-group experience to be generalized into ideas about group performance in real organizations.

In spite of the short comings of the experiential approach, the end of the 70s had laid most of the theoretical foundation for group process research (Luft, 1984).

2.1.3 From Experiential Observation to Socio-technical Intervention

Later research on teams in the 1980s was to become more eclectic, as the socio-technical and interventionist trend, borrowing heavily from the so called 'Tavistock Way' (Luft, 1984) emphasized the integration of the socio-psychological with the technical approaches to group intervention as a means of securing organizational change. Luft (1984) suggested the need for

> [...] social and psychological needs to be met by arrangements that offered some independent judgment and decision making by the worker [...], group and interpersonal relationships that were satisfying and [...] some work in which workers contributed a meaningful part [...].
>
> (Luft, 1984:167)

In the late eighties, the focus of organizational improvement research took the form of the incorporation of new technologies and the early nineties began to be characterized by renewed awareness of intrinsic organizational changes which did not necessitate a massive investment of capital (Tranfield et al., 1998:378). This gave rise to the re-emergence of organizational development initiatives such as Human Resource Management, Total Quality Management, Continuous Improvement, Just In Time, Investment in People and Business Process Re-engineering (Belbin, 1981; Adair, 1988; Oakland, 1989) *inter alia*, premised on the promise of increased flexibility which increased technological efficiency, achieved through the introduction of Information and Communication Technology (ICT), had accorded organizations. From these, emerged studies from organizational development experiments and experiences predicated on the value of teams and teamworking (notably Belbin, 1993; Belbin, 1996; also Katzenbach and Smith, 1993) as interventional mechanisms for improving the effectiveness of organizations. The plethora of ensuing studies (Staniforth, 1993; Spears, 1996; Strachan, 1996; Teare *et al.,* 1997; Nash, 1999; to name but a few), within the 'how to' paradigm aimed to provide managers with strategies for building, maintaining and developing teams within specific natural contexts, in the hope that the suggested strategies would lead to increased organizational change and effectiveness. This may explain in part, why team literature is so embedded within change discourse (Williamson *et al.,* 2001).

2.2 Reviewing Educational Management Literature: The Theoretical Rationale for Examining Teamworking within Schools.

The principles developed in organizational behaviour and management studies in the corporate context have been translated with more or less significant adaptations into

school management. In this respect, education management is a relatively recent area of research whose development has intensified as increasing powers have become devolved to schools since the introduction of Local Management of Schools (LMS) in the late 1980s. LMS has come to be understood as a form of school self-management in which schools themselves, rather than local authorities are made accountable for the way in which resources are allocated (Bush, 1997:6). Although this has led to increased and usually welcome independence in deploying resources to address school-specific needs, LMS has changed the landscape of school management in the responsibility conferred to schools for their own effectiveness. It follows that traditional management/ organizational behaviour studies have had to be mediated to adapt to new educational contexts and to service a new audience, spawning as a result, school specific text geared to enabling teachers facing the new management challenges and multiple government driven change.

One of the earlier researchers of the post ERA[7] environment, Whitaker (1993) for instance, draws upon studies of management practice outside Education, to propose strategies for taking on, implementing and coping with accelerated change in educational *milieux* through cultural empowerment engineering action and goal oriented management within schools. Emerging from a detailed description of change factors (viz. improvement, rigidity, polarization and inheritance), he advocates team learning and team building - the cornerstone processes for success in change generation and implementation - as comprising a shift from

> [...] notions of management that are status related and role-specific, to ideas [...] which are interactive, team focussed and collaborative [...].
>
> (Whitaker, 1993:75)

The strategies which he proposes (the focus on people, communication and active engagement (Whitaker, 1993:121)) are experientially sound, visibly well researched and of obvious usefulness to school managers needing an ideational scaffold for innovation. However the study shares this psychological weakness with other non-school based

[7] Education Reform Act (1987)

research (Hammersley, 1993:214) that it remains within the realm of postulation, presenting notions predominantly in terms which most teachers would find distant to acquiring an understanding of their real worlds, as they seek to forge the collaborative cultures advocated within the proposed framework.

A picture of such a collaborative culture is painted in Bell's (1992) study of management practice in secondary schools, which views effective team work as a *sine qua non* for school improvement. He develops this argument that to varying degrees, all teachers within a school essentially play management roles (1992:2) which creates the need for school management to be based on teamwork. Acknowledging the ever increasing and constantly changing responsibilities devolved to schools, Bell argues that the idea of the achievement and maintenance of standards based on the charismatic leadership of one all powerful head is bankrupt; following from which the need to manage collective responsibility becomes a necessity for organizational survival, rather than mere good practice. He argues that the body mass of work to be done within schools resulting from the legislative and ideological pressures originating in the Educational Reform Act (1987) makes any lingering forms of isolationist practice within schools not only ineffective, but also impossible:

> [...] schools are not made up of a large number of autonomous individuals acting independently of each other. Pupils are grouped in classes, sets, streams, year groups, houses, teams and in other ways. They are expected to act as a group rather than as individuals when they are thus organized. The same is true for teachers who may belong to departments, teams or a variety of other units within which they are expected to act to a greater or lesser degree in concert with colleagues.
>
> (Bell, 1992:2)

The impact of Bell's study resides in the masses of practical school based examples which he uses to illustrate his propositions, as he pinpoints the specific areas within which slight but insightful changes in the way in which people are managed, may deliver improvements. In Bell's disfavour, it could be argued - in the absence of an attached

study demonstrating that these propositions do work in fact - that, as schools are characteristically unique, the case for his study being any more than advice to managers is yet to be established. It is, as such, dangerously close to the category of studies, which Bush has referred to as

> [...] the body of literature which prescribes 'best practice' for managers but provides little empirical support for such prescriptions.
>
> (Bush, 1997:x)

Similar to Bell's in the primacy it accords to collaborative approaches to school management, Bush's (in Bush and Middleton, 1997:10) study describes the dominance of collegial models as the new orthodoxy in educational management, in terms of their capacity to facilitate more democratic styles of management. Collegial approaches to management are those

> [...] in which power is shared amongst some or all members of the organization who are thought to have a mutual understanding about the objectives of the institution [...].
>
> (Bush, 1997:68)

What Bush's study challenges are the 'traditional' means-ends approaches to management which view collaborative and participative management styles as co-terminal with school effectiveness. He judges collegial management styles to be at best aspirational or even idealistic, as they could portray an incomplete account of the reality of people management within schools. By pointing out that people should be managed as an end in their own right, Riches (1997) reinforces this view:

> [...] people are employees and performers with legal and moral rights; they are to be treated as ends and not only as means to an organizational end [...].
>
> (Riches, 1997:20)

What emerges from Bush's (1997:21) study is a systematic remodelling of people management in education based on a five indexical points of entry (viz; staff selection, leadership, motivation, appraisal and development, and, interpersonal relationships) in which people are central to all management action within schools.

Competing discourse which challenges the orthodoxy of team based management have since emerged (O'Neill, 1997; Hall, 1997; Hayes, 1997; Van Hootegem, 1999). For instance, O'Neill's (1997) view of team management as an instance of the collaborative approach treats conflict as inherent in team dynamics. For O'Neill, the notion of conflict in team-working is so paramount that he defines teams in terms of it:

> [...] a team is a small group of people who recognize the need for constructive conflict when working together, in order for them to make, implement and support workable decisions.
>
> (O'Neill, 1997:77)

While agreeing that formal team approaches are succeeding in eliminating some of the less sensitive aspects of administrative and management procedures and processes, O'Neill argues that highly individualized facets of school life are difficult to reduce to purely rational processes even for managers who wish to operate along team lines. This aspect of team-work is highlighted in Belbin's (1996:101) allusion to political systems and business corporations as being run, not like sports teams, but like Russian dolls; wherein potentially imprisoning symbolic uniformity is achieved by successive replication, with the very small being merely miniaturized versions of the larger exterior. By suggesting that

> [...] mandated team approaches [may be] too threatening and too demanding a vehicle for the development of [...] many schools and colleges. [...],
>
> (O'Neill, 1997:84)

O'Neill (1997) has used the prevalence of conflict and tensions between the pressures of best practice and pedestrian resource shortage-ridden school reality, to challenge the soundness of a collegial-collaborative-team argument which does not take full account of the levels of teacher autonomy or the conflict over scarce resources prevalent in schools today. Bringing the debate round the proverbial full circle, he posits that team approaches may be an inappropriate vehicle for analyzing certain aspects of teachers' work:

> [...] a team structure needs to be leavened with other management

> approaches [...]. If the ultimate purpose of management activity is to enhance the quality of learning for both staff and students, then senior staff in schools and colleges need to recognize, and have faith in the benefits which derive from continued teacher autonomy together with [...] collaborative initiatives which are based on [...] groups; in effect, a valuing of the enduring occupational culture of teaching itself.
>
> (O'Neill, 1997:88)

Without going so far as to concur with Ball's (1987) extremely political take on teams, in which struggles between intrinsic conflicting interests, masked by apparent consensus is highlighted, the view taken in this paper is this that, the ambiguities and conflicts, exerted upon teamworking in schools, is likely to represent a truer version of reality than the sanitized versions typically proposed in generic management literature on teamworking.

It follows from the above, that the theoretical rationale for this study resides in its focus on observing and analyzing how teams *actually* operate in the two educational contexts of this project, as opposed to how they *should* operate generically. By referring to the benefits of teamworking to schools as proposed, and, informed by the theoretical progress in educational management literature, this study makes some contribution towards illuminating and reconciling the attractive -and sometimes conflicting - issues raised by the teamworking discourse. The aim of this study is to work downstream of the locus of experiential-prescriptive research, to provide an educational field-relevant scrutiny of teamworking in natural school contexts.

2.3 A Review of Relevant Conceptual Themes

This project derives its rationality from a constellation of theoretical notions constructed around teams, team roles, team leadership, interdependence and teamworking, in as much as they affect the life and maintenance of groups within real school contexts. This section

is dedicated to examining the relevant aspects of these notions, with a view to arriving at working definitions, as they will be used in the project.

2.3.1 On Teams: Defining Terms.

Conceptual agreement about what teams - as opposed to groups or collectives - are, is problematic and well documented (Bush, 1997; Belbin, 1996; Ingram and Desombre, 1999). According to Hayes,

> [...] the idea of 'teams' at work must be one of the most widely used metaphors in organizational life. [...] what is described as a team was anything but. The mental image of cohesion, co-ordination and common goals which is conjured up by the metaphor [...] is entirely different from the every day reality of working life.
>
> (1997:27)

Benders and Van Hootegem (1999) have referred to the word 'teams' as denoting a rhetorical strategy through which managers hope to achieve their goals. It follows therefore, that a useful angle to understanding how to define teams may lie in exploring the tensions around the 'groups' versus 'teams' taxonomy. Groups generically denote an aggregation of people who happen to be in close physical proximity at any given time, with no specific mandate. However, when a group develops a sense of identity and belonging they become a 'psychological group' which Huczynski and Buchanan have referred to as consisting of

> [...] two or more people in face to face interaction, each aware of his or her membership in the group, each aware of others who belong to the group and each aware of their positive inter-dependence as they strive to achieve mutual goals.
>
> (2001:277)

Admittedly this definition does not take account of virtual teams (Bal and Teo, 2001) which appear to work effectively over long distances on the back of developments in communication technology. Johnson and Johnson's (1991) five characteristics (viz.; membership, shared communication network, collective identity, shared goals, and group

structure) and Ingram and Desombre's (1999) similar five characteristics (viz.; aggregation, proximity, purpose, interaction, and interdependence) have been used to differentiate between psychological groups and generic groups. These typifications point to conceptual congruence between acceptations of psychological groups and definitions used to explain the notion of teams, especially if agency is taken into account; as in:

> [...] a group of people with the appropriate knowledge,
> skills and experience *who are brought together* [...][8] to
> tackle and solve a problem.
>
> (Oakland, 1989:307)

Other definitions of groups confirm the apparent confusions resulting from the overlapping acceptations of the two terms; for instance, Luft defines a group as

> [...] a living system, self-regulating through shared perception
> and interaction, sensing and feedback, and through interchange
> with its environment. Each group has unique wholeness qualities
> that become patterned, by way of members' thinking, feeling and
> communicating into structured subsystems. The group finds some
> way to maintain balance while moving through progressive changes,
> creating its own guidelines and rules and seeking its own goals
> through recurring cycles of interdependent behaviour [...].
>
> (1984:2)

This acceptation of groups could also validly define teams. In fact, Schermerhorn et al.'s perceptive comment that

> [...] it is increasingly common today, to use the word "teams"
> [*sic*] when referring to various types of formal groups [...],
>
> (1995:62)

opens the possibility that the source of ambiguity, may reside not in the taxonomy of the notion, but in a semantic hiatus between the conceptual perceptions of academics and the experience-based use of management practitioners. With this in mind, and for the purpose

[8] Researcher's emphasis.

of this project, clarity dictates that the term 'team' be used as referring exclusively to what others have referred to as 'psychological groups' (Buchanan and Huczynsky, 2001) or 'synergetic collectives' (Belbin, 1996:98). In this paper, the term will not *prima facie* be used to denote any other collective of individuals.

The above calls for a review of constructions of the team concept, which, to achieve clarity have been grouped in this research under three broad heuristic perspectives. A reading of existing literature has shown a tendency for group psychologists and management theorists to approach a definition of teams from one or more of the following perspectives:

⇒ From how teams are formed and how they survive (Generative Models)

⇒ From what teams do (Functional Models)

⇒ From how teams work (Structural Models).

Development based, ***generative*** constructions of teams such as Homan's model of group formation (1951) see teams as being the result of requirements by the organization for a group to perform certain *activities* which entail a number of *interactions* with others, leading to the setting of *norms*, which then generate *sentiments* from group members. Tuckman (in Tuckman and Jensen, 1977) adopts a similarly developmental construction of teams (from storming, norming and forming, through to performing and mourning), which charts a non-linear trajectory of team evolution. With particular reference to the development of virtual teams, Lipnack and Stamp (1997) also identify the five developmental phases (viz; start up, launch, perform, test, deliver) of teams. While providing a useful framework for a paradigmatic analysis of teamwork and dynamics, these and other similar team development models have tended to subsume strong assumptions of monolithic and integrated (Meyerson and Martin 1987:12) constructions of team culture. Collective development is taken as a given, with due credence not necessarily accorded to differentiated roles, speeds of autonomous member development, differentiated individual motivation and contributions that may be inherent in teamworking within natural contexts.

Within ***functional*** models, teams are defined mainly by what they do. As such, teams are originated by agency, within an organizational structure and are categorized by the nature of their 'joint work' as advice, action, project, production and cross-functional teams (Buchanan and Huczynski, 2001). In the functional paradigm, teams are depicted to be more than the sum of their parts because the 'combined contributions of their members are more diverse than that of any individual' (Wallace and Hall, 1997:139) and, although due regard is given to the other aspects of teamworking (viz. process, procedure and review), these are important principally inasmuch as they enable task performance and goal achievement (Bell, 1992; also Nash, 1999). Bell's definition of a team is an illustration of this stance:

> [... it is] deliberately and carefully formed and managed. [...] individuals working together to achieve more than they could alone. [...] building upon their strengths and creating confidence within the group, which individuals on their own may lack [...].
>
> (1992:120)

Literature on teams in the functional paradigm, tends to be instructive and/or prescriptive, and geared at guiding managers on how to build and maintain effective teams. Examples include Adair (1988), on team building; Nash (1999), on high – impact teams and Varey and Nolan, (1996) on teamworking.

In Adair's (1988) action-centred model for instance, teams are defined by their tasks, their response to, and achievement of which are expressed in terms of the separate and collective needs of members; with high performance team-working situated where task needs, individual needs and team needs converge. The Total Quality Model adopts a similar functional approach in this that it sees the role of teams primarily in terms of their ability to deliver 'customer satisfaction' through incremental quality innovation (Oakland 1989:10). Using a theoretical collapse of previous theoretical work on teamworking (viz.; McGregor, Marslow, Herzberg and Adair, Briggs Meyers and Hirsh, and Kummerow (Oakland, 1989:321-325)), the TQM presents a prescriptive profile of what a 'good' culture-changing, commitment-generating and resource-efficient team should do, to enable an organization achieve and maintain Total Quality Improvement status.

Finally ***structural*** models of team depiction tend to focus on how teams communicate and interact in terms of relative power, status, liking, patterns of communication and interdependence, roles and leadership (Buchanan and Huczynski, 2001:311). Advocates of the structural designation of teams include Bales (1950b), who proposed an *interaction process analysis* (IPA) as a twelve-category model for investigating teams' need for order, predictability and a low tolerance of ambiguity. Within Bales' model, an observer can see and record interaction (who does what to/with whom and when[9]). When grouped under his proposed 'frames of reference', the group profile which emerges can be used to test theories about relationships within the team. Bales' techniques of communication pattern and network analyses help differentiate teams from each other by categorizing verbal and non verbal behaviours into 'team-positive' or 'team-negative' acts; from which statistical and diagrammatic schemas are developed. Within the same approach Moreno (1953) also defined teams in terms of their 'sociometry' by which he could show the networks of the interpersonal feelings and relationships, within which team members could have positive or negative 'tele' (1953:70) *vis a vis* each other. The schematic representation of the network of 'tele' constituted the team's sociogram and could be used to distinguish teams from each other.

Starting as a structural team theorist, Belbin uses team composition as his point of entry for team definition:

> [...] the essence of a team is of players who have a reciprocal part to play and are dynamically engaged with one another. [...] each player knows when and where to enter and to exit. Indispensable for this context is the knowledge the players have of one another.
>
> (1993:87)

By moving from composition to how team roles work together, to proposing insights as to how team roles can best be managed to produce effective interdependence, Belbin repositions himself astride the structural-functional divide. As a result of his study of

[9] See Appendix A.

managers in training, Belbin prescribes a self-perception inventory (SPI) from a cluster of related 'team roles' (1993), from which he models nine typical team roles/personality characteristics, allowable weaknesses, as well as typical and unusual combinations for building effective teams, as a solution to the increasing hostility of an educated work force to 'solo leader' decision-making within organizations.

As can be gleaned from the above perspectives, an all-encompassing definition of a team is yet to be generated or agreed upon. It follows that the definitions of teams, which lend themselves most readily to analysis are those which succeed in collapsing the salient generative, functional and structural quality of teams such as Tranfield *et al.*'s

> [...] a group of individuals who share a purpose, occupy a set of interdependent roles, use mutual adjustments as a prime coordination mechanism, identify with the team and develop emotional attachments to it [...]
>
> (1998:380)

or Crawford *et al.*'s, which seek to deconstruct the notion into its constituent characteristics:

- ⇒ People care for each other.
- ⇒ People are open and truthful.
- ⇒ There is a high level of trust.
- ⇒ Decisions are made by consensus.
- ⇒ There is a strong team commitment.
- ⇒ Conflict is faced up to and worked through.
- ⇒ People really listen to ideas and feelings.
- ⇒ Feelings are expressed freely.
- ⇒ Process issues are dealt with.

(Crawford *et al.*, 1997:186)

These acceptations index the mindset which informs the analysis of team working within this project. This is because their melding of the functional and structural qualities of teams makes a comprehensive assessment of teamworking in real contexts possible.

Table 2.1 below summarizes the theoretical framework which underpins the analysis of the work of the teams in this study. It also identifies the locus within the organizations in this study from which data is obtained.

	TEAM QUALITY	SALIENT CHARACTERISTICS FOR ANALYSIS	LOCUS OF DATA COLLECTION
1	Generative	Team history. Team development over 1 year.	The organizational context. The team context.
2	Functional	Team types. Team goals. Nature of joint work.	Individuals working on behalf of the team. Joint work outside meetings.
3	Structural	Team composition. Team interaction. Team leadership. Interdependence. Conflict.	Joint work within meetings. Joint work outside team meetings. Individuals working on behalf of the team.

Table 2.1: Team Quality, Characteristics and Locus of Data Collection.

By grounding the description of the teams within this study in existing theoretical thinking, the aim is to achieve a multiple perspective, multi level scrutiny of team characteristics, which should provide a simple but comprehensive account of team working; from which a picture of the nature of teamworking within real environments can be evinced through two-way forays between domain boundaries. This approach also helps to provide structural symmetry in a study which is made up, as it is, of cases which are not necessarily homogenous.

2.3.2 On Team Roles

A product of Bale's study (1950) of verbal interactions in conference situations which evinced the Interaction Process Analysis, was the fact that the identification of individual participatory patterns (task-oriented and socio-emotional) made it possible to achieve a description of roles through the analysis of individual verbal and non verbal contributions in a group situation. Role denotes the activities expected of an incumbent of a particular social position or office, which increases the predictability of their interactional behaviour. Proponents of role theory (e.g. Scott, 1997; Chiu *et al.*, 1998; Siegall, 1999; Wise, 1999), maintain that role *per se* is not as important as the network of relations

among the roles, given that it is the network, which makes up the dynamics of teams or organizations. For instance, Wise (1999) argues that the term 'role' circumscribes much more than the tasks and responsibilities which come with positions within organisations:

> [...] it is not synonymous with job description because tasks and responsibilities are only a part of the role. It has more to do with the relationships with relevant others and the associated behaviours expected of the post holder [...]. As such, role must be thought of as dynamic because it is dependent on relationships for its definition, [...] as relationships develop and change so does the interpretation of role.
>
> (Wise 1999:39)

In his report of the findings of the so-called 'Management Game' experiments, Belbin (1993) drew a crucial distinction between the two types of roles relevant to teamworking:

> [...] the term 'team role' refers to a tendency to behave, contribute and interrelate with others at work in certain distinctive ways.
> [...] one needs to discriminate sharply between a person's team role and 'functional role', where the latter refers to the job demands that a person has been engaged to meet by supplying the requisite technical skills and operational knowledge.
> [...] the significance of the difference is that people appointed to a given job are likely to vary greatly in their team role [...] but their functional role is, or should be, exactly the same.
>
> (Belbin, 1993:24)

Belbin argued that what mattered most in team outcomes, given a fair field of adequately qualified candidates, was the manner in which designated team members were likely to behave in a group situation. With experiment participants chosen using a battery of personality and ability tests, Belbin's initial observation of group interaction, evinced eight team roles (viz. plant, resource investigator, co-ordinator, shaper, monitor-evaluator, teamworker, implemeter, completer), comprising archetypal role descriptions and allowable/unallowable weaknesses. The role of 'specialist' was a later addition to the repertoire, as a consequence of a trial study finding, when the experiment was applied

to a natural organizational context. This was because it became evident that, in the 'goldfish bowl' environment of experiential experimentation, the need for specialist knowledge had not been felt, although this was crucial in the real world. Other contemporaneous team related work (Woodcock, 1989; Margerison and McCann, 1990; Davis *et al.,* 1992 and Spencer and Pruss, 1992), have evinced different role demarcations within teams featuring ten, nine, five, and ten roles respectively.

Belbin's (1993) team role theory relies on the proposition that people inhibit their natural behaviour or change its form to take account of immediate factors in their environment. He identifies six factors which determine team role behaviour, to wit; personality, mental abilities, current values and motivations, field constraints, experience and role-learning:

> [...] individuals eventually arrive at a stable pattern of association with their fellows based on a personality propensity, modified by the thought process, modified still further by personal values, governed by perceived constraints, influenced by experience and added to by sophisticated learning [...].
>
> (1993:39)

The empirical authority inherent in Belbin's study's experimental extractions could be questioned on the grounds of the attribution of success or failure of teams on the grounds of composition alone. Similarly Belbin's use of ipsative personality testing in the selection of research subjects devalues the study's import to team member selection if other equally relevant sociological and environmental factors (such availability, capability and micropolitics) are taken into account, as they would be, say in teaching. Nevertheless among the strengths of Belbin's study is the potential for application, which an awareness of team role versatility and coherence has for optimizing the performance of small teams. The study's contribution to self-insight and self-management through role-learning has great value in engineering effective interpersonal chemistry within teams. It is also significant in the avenues, which it proposes for unravelling the substructure of strained relations within teams which may cause conflict and underachievement. Apart from its inherent translatability to other contexts, it is in its

facilitation of the diagnosis of team relations that Belbin's work derives its usefulness to this research. For instance, team role combinations could be used as a barometer for judging the extent and the effectiveness of teamworking within the teams under scrutiny.

2.3.3 On Leadership of/within Teams

Widely acknowledged and researched as a critical factor of effectiveness within organizations, leadership is a notion emerging from roles which, though generally observable within organizations, is not easily defined. Luft (1984), for instance, places the measurement of the group leader's behaviour at the centre of group dynamics. Citing Freud; 'it is impossible to grasp the nature of a group if the leader is disregarded' (in Luft 1984:116) the stance taken, is this that, within unstructured group settings - notably those of the experiential/experimental variety - apparent 'leaderlessness' invariably creates problems of leadership, mostly owing to the fact that group members' reasonable expectations of the existence of a leader, are not met. Luft's (1984) review of measurement studies of group leader's behaviours in T-Group settings revealed four categories of group leader behaviour (viz.; caring, meaning attribution, emotional stimulation and executive function), which characteristically reveal inconsistencies and contradictions attributable to the fact that leaders did not necessarily practice what they professed to espouse.

Attempts to raise a definitive acceptation seem to generate more unresolved issues than straightforward answers. This is compounded by the frustration of there seeming to be an assumption in education management literature (Beare *et al.,* 1997; Southworth, 1995; Day *et al.* 2000) that leadership is predominantly the province of headteachers. An exercise in heuristic deconstruction to arrive at understandings of leadership as it pertains to teams within the middle belt of school structure is therefore pertinent to this study.

Generic definitions traditionally highlight the focus of leadership to be goal achievement which, it is assumed, will be the mandate of one person or a small group of people within an organization, to exercise unidirectionally on others. According to Dixon

> [...] leadership is no more than exercising such an influence upon others that they tend to act in concert towards achieving a goal, which they might have not achieved so readily had they been left to their own devices.
>
> (1994:60)

Nash's picture of a team or group leader is another case in point:

> [...] the main role of leaders is to influence and inspire their group or team [...] team leadership falls into three major categories: achieving the objective, developing the individuals and building the team.
>
> (1999:231)

Examined critically, the apparent simplicity of these definitions masks the complications and paradoxes, within which are subsumed 'rational-technical' (Ogawa and Bossert, 1995:12) ideas of an omniscient being perched at a hierarchical pinnacle, influencing outcomes of whole organizations.

As far as teams and teamworking are concerned, it is not necessarily an advantage that there exists a plethora of research on leadership, especially as the focus tends to be on whole organizations, evincing issues one level removed from that of leadership at the middle belt of educational organizations. Huczinsky and Buchanan (2001) have suggested five conceptual approaches from which the notion can be understood, viz.

- 'Trait spotting' denoting an understanding of leadership based on personality markers, greatly influenced the 'Great Man Theory' in which positions of influence are arrived at by sheer force of personality.
- 'Style counselling' denoting attempts to describe patterns of behaviour by which leadership styles can be identified.
- 'Context fitting' referring to a contingency approach within which leadership behaviours and styles are a factor of context and moment.
- 'New leadership' denoting attempts to identify transformational and inspirational aspects of power, focussing on motivational qualities.

- And finally 'dispersing the role' which refers to the view that leadership transcends formal positional roles within organizations. Dispersing roles in leadership aims to develop self-leadership in others.

The various points in this categorization are not individually distinct. They however, provide a reasonable summary of the succeeding fashions of leadership studies in the twentieth century.

Within the school context, Beare *et al.* (1997) have attempted to describe the dimensions of leadership in terms of the relationship dynamic between traditional transactional and democratic transformational leadership styles and behaviours. Starting from the traditional 'trait spotting' position in which leadership is seen as

> [...] the exercise of authority and the making of decisions. [...] the task of directing and co-ordinating task relevant group activity [...],
>
> (1992:25)

they use the pertinence of Fiedler's (1967) style/behaviour contingency theory clarification to wit that;

> [...] leadership style is an innate relatively enduring attribute of personality which provides the motivation and determines general orientation when exercising leadership [...]. Leadership behaviour on the other hand refers to particular acts which we can perform or not perform if we have the knowledge and skills and if we judge them appropriate at the time [...],
>
> (Beare *et al.* 1997:27)

to move from depicting transactional leadership as involving a simple exchange which achieves set goals, to advocating 'inspirational/ motivating' transformational leadership wherein

> [...] while still responding to needs amongst followers, the leader looks for potential motives in followers, seeks to satisfy higher needs and engages the full person of the follower [...] the result is a relationship

> of mutual stimulation that converts followers into leaders and leaders into moral agents.
>
> (1997:28)

In setting out their ten dimensions of leadership Beare *et al.* (1997) call attention to the limitations of contingency theories as being too narrow for leaders in schools in their potential for impact and application in real contexts. Instead, they propose that

> [...] emphasis be given to transforming rather than transactional leadership [...] the intent being to change attitudes and bring about commitment to 'a better state' [sic] which is embodied in a vision of excellence.
>
> (1997:37)

Ogawa and Bossert's (1995) advocacy of leadership as a 'systemic quality of organizations', takes the notion of transforming leadership one step further towards 'role dispersing'. They argue that because schools tend to have administrative structures decoupled from their core activities, individuals tend to enjoy a greater level of discretion. Using role theory to distinguish between hierarchical positions and the network of relationships which role confers upon an individual, they posit that

> [...] leadership is embedded not in particular roles, but in the relationship that exist among incumbents of roles [...] members can draw on resources to which their roles provide access, to influence others who require those resources to enact their roles successfully [...].
>
> (Ogawa and Bossert, 1995:19)

They state that

> [...] the deployment of power resources are distributed between a network of roles with different levels of roles having access to different levels and types of resources. [...] leadership is not individual action but social interaction.
>
> (Ogawa and Bossert, 1995:17)

It could be argued that, by bringing the dynamics of mutual influencing between leaders and followers into the limelight, Ogawa and Bossert are suggesting that all team members are (or should be) team leaders, and that the idea of the existence of one team leader is questionable and due for debunking. This position is dominant in literature pertaining to virtual team working (Parker, 1991; Lipnack and Stamp, 1997, Fisher and Fisher, 1997; Duarte and Snyder, 1999) in which it is advocated that leadership is shared in cognisance of the differentiated technical and normative competencies which typify the composition of virtual teams. In fact, Nash suggests that in high performing teams, this is in fact the case:

> [...] team leaders are viewed as guides who can make or break team performance. They lead so that the individuals and the team can move through the stages of team development and perform effectively. However, once the team is performing effectively, almost any team member can take a leadership role. In fact, leadership rotates depending on the task at hand and the team will ultimately practice equal or shared leadership [...].
>
> (1999:232)

These propositions provide a rationale for looking at the deployment of leadership within the cases in this research.

In seeking to tease out what understanding team leaders within this study have of their roles, some of Day *et al.*'s (2000:135) seven tensions of leadership in schools, albeit predicated on a study of headteachers as the quintessential team leaders, could if transposed to middle level team leaders, be proposed as avenues for investigating the contradictions and inconsistencies in the leadership of teams in natural settings. These competing tensions include; the need to lead versus the need to manage, the need for autocracy versus members' need for autonomy, the need to perform professional tasks versus pressures of time and personal values versus team imperatives. Because of the effectiveness with which these dilemmas conceptualise the types of problems faced by leaders in the middle belt of schools, they will inform the analysis of leaders' behaviours within their teams, in this study.

2.4 On Teamworking

Whether by design or happenstance, most studies of teamworking seem to be inextricably linked to change achievement and/or management. As with the notion of 'teams', a definition capturing the essence of teamworking, is difficult to find in management literature. The more recent studies on teamworking (Parry *et al.*,1988; Varey and Nolan, 1996; Staniforth, 1996) tend to assume that we have some prior knowledge of what teamworking means, or tend to treat the term as synonymous with 'teams' (Spears, 1996; Teare *et al.*, 1997). The closest attempt at a distinction is Ingram's (1996:7) description of teams as '[...] two or more people who co-operate together with a common aim'. Ingram likens teams to marriages where individual subjectivities are superseded by a common interest. By proceeding to define teamworking as '[...] a disciplined and focussed *way of working*'[10] characterised by relationships, social interaction, purposiveness and 'groupthink' (1996:8), Ingram begins to unpick the semantic blurs between the two notions, thereby differentiating 'teams' (a social/structural construct) from 'teamworking' (a process/*modus operandus*).

In a later study, Ingram and Desombre (1999) wrestle with the relationship between the so-called '[...] perplexing phenomenon of teamwork' (1999:16) on the one hand, and 'work teams' on the other. In attempting a distinction between groups, teams, work teams and teamwork, they define teamwork as

> [...] "organized co-operation"[*sic*] which captures
> the contemporary notion that work is increasingly
> being done by teams who can perform in a cohesive way.
>
> (Ingram and Desombre, 1999:18)

They propose that the difficulty in circumscribing the phenomenon may reside in its complexity and richness, but above all in its embededness in human interaction and social context:

> Most people seem to agree that teamworking is both

[10] Researcher's emphasis

> desirable and valuable, but it is an illusive concept.
>
> (1999:22)

In spite of difficulties with definitions, the existing literature abounds with consensus over the appropriateness of teamworking as the strategy *par excellence* for re-engineering organizations faced with the permanence of change. With their minds set on social impact, Parry *et al.* (1998) see teamworking as the key to transformation at all levels of the organization given that it offers the flexibility and responsiveness, which ensure competitive advantage;

> [...] in the board room [...], project teams permit cross functional initiatives, creating ad hoc [*sic*] groupings that are developed and designed to reduce the uncertainties inherent in co-ordination across cross-functional boundaries [...]; on the shop floor teams facilitate the successful exploitation of integrated technologies and systems and therefore can redraw traditional lines of demarcation and authority [...].
>
> (1998:116)

They argue that it is this ability to break through existing social and structural barriers, which makes teamworking a powerful tool for cultural change and social empowerment.

Conversely, as part of a study of a project on the continuous improvement of teams in a selection of NSQT[11] Excellence Award-winning UK and US based companies, Teare *et al.* (1997) shift the locus of impact of teamworking away from social empowerment to highlight the centrality of business outcomes, through the use of the 'mix of six [...] led from the top [...] 'ingredients' [...]' (1997:251). *Prima facie*, the benefits of teamworking to the organization which Teare *et al.* (1997:255) propose, roughly match those on which Parry *et al.* (1998) base their arguments; notably in the areas of business performance improvement, improved competitive positioning, maximising employee participation, learning and cost reduction, improved resource utilisation, process reengineering, decentralised planning, and, co-operation and integration. These are

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[9] National Society for Quality through Teamwork –A registered UK charity.

benefits that are increasingly becoming applicable to schools without the mediation which would have been necessary in the pre- Education Reform Act (1987) era.

However, from their *post hoc* study of the above organizations, Teare *et al.* (1997:255) emphasize the particular efficacy of teamworking for solving problems in crisis situations, design improvement and unwanted process outcome management, as the core advantage of 'teamworked' (Tranfield *et al.,* 1998: 378) organizations. By referring to improved commitment and motivation, improved communications, a sense of learning from each other and inter/personal satisfaction as the 'unexpected benefits' of team working, the temptation is to question how teamworking predicated on output without due regard for process and context is likely to deliver the permanence of change. In fact, Recardo and Jolly (1997) make the very point that the lack of a 'culture fit' diagnostic prior to reengineering, sets change initiatives up for failure, given that

> [...] many organizations naturally operate hierarchically and use management practices that are incongruent with teams [...].
>
> (Recardo and Jolly 1997: 285)

Given the fact that both Teare *et al.* (1997) and Parry *et al.* (1998) are contemporaneous, one is left with no option but to ascribe the divergence in their interpretive constructions to differences in their research contexts. The fact that the latter study was conducted within the manufacturing environment where output is more concrete and therefore more easily measurable than in the former study, conducted within the service industry, holds for greater significance than is made explicit in the arguments.

Tranfield *et al.*'s (1998) study clarifies this involved debate by distinguishing between three 'archetypes of teamworking' which predominantly - though not exclusively - deliver different key benefits to organizations. According to Tranfield *et al.,* (1998:382) *lean teamworking* is strong on waste elimination but produces alienation and low discretion*; self-directed teamworking* generates high involvement and commitment but is limited in its impact outside its own boundaries; while *project teamworking* is strong on integration and coordination, but weak in functional focus and team learning. Their

distinctions are tempered by a caveat about the rarity of prevalence of pure archetypes in real contexts, owing to all-important differences in organisational legacies and strategies.

Van der Vegt and Van der Vliert's (2001) view of team effectiveness in terms of interdependence provides a model which enables diagnosis and intervention within teams, such that judgements can be made about the extent and impact of teamworking in real contexts. They propose two types of interdependence, to wit, task and outcome interdependence: *Task interdependence* is a feature of the instrumental relations between team members, while *outcome interdependence* concerns itself with goal and reward sharing. This a useful approach because it facilitates the conceptualisation of teamworking as well as the operance of research on the subject, given its distinction between the degree of impact at different levels of analysis (notably at the team and the individual levels), as well as between degrees of interdependence within levels of analysis and the individuals involved. Van der Vegt and Van der Vliert's optic further strengthens the views discussed above, in which teamworking is referent to a way of working rather than to the existence of a social construct - the group or the team.

If we agree that teamworking describes an interdependent manner of working together as well as an emotive state which are both contingent on context, what is being examined in this research is therefore the interdependence of individuals within teams as well as the interdependence of teams within two specific contexts. How then should teamworking within educational *milieux* be envisaged? Once again the literature indicates divergent approaches. On the one hand Varey and Nolan (1996) contend that because the education environment has changed drastically since the late 80s,

> [...] bringing with it considerations [...] such as cost, profit customers and demand [...] which previously were believed by many to affect only commercial organizations [...],
>
> (1996:10)

working practices are obliged to realign themselves away from the 'simple and stable' context of professional bureaucratic practices towards a more market oriented practice. Their corpus is a case of teamworking implementation within a higher education

environment and they conclude that though teamworking does improve the quality of work, there are significant areas of frustration and resistance attributable to professionals' views about their traditional academic autonomy on the one hand, and difficulties in achieving synergy with the administrative culture of the support staff and professionals, on the other.

As a reaction to the same trigger for change in a 'hostile environment', Wallace (2001) identifies a dilemma within schools: The need to balance teamworking - a morally just and pragmatic strategy for dealing with the barrage of initiatives - on the one hand, with the increased vulnerability of headteachers to public vilification because of their individual accountability for failures which may result from sharing leadership with others who may not share or enact their vision, on the other. Wallace (2001) concludes that the prescriptive approach such as adopted by Varey and Nolan (1996) above, would at best deliver contrived collegiality, in a context where there are numerous opportunities for

> [...] toeing the official line [...] in the zone of policy while, behind the classroom door, in the zone of practice, [teachers] possess sufficient agency to do their own thing.
>
> (Wallace 2001:156)

Wallace's position is therefore that anything but a 'contingent approach' to teamworking is idealistic:

> Because as school leaders do not live in an ideal world, the extent of the sharing which is justifiable depends on empirical factors [...] which are contingent on the situation.
>
> (2001:153)

Given the context sensitivity of teamworking (Wallace, 2001), and the possibility of varying degrees of non-congruence in interdependence (Van der Vegt and Van der Vliert, 2001) within the teams under study in this research, a multi-view take (to wit; *within*, as well as *outside* formal team structures) on the 'ways of working' (Ingram, 1996:8) is

called for. This seems to be the best way in which teamworking in real contexts could credibly be approached.

2.5 Towards an understanding of the mandate of Teamworking

From the difficulties of arriving at a unitary understanding of what teams do and what teamworking should involve, it seems important that an attempt be made at clarifying existing categorizations of what teamworking should involve, in order to be better able to recognize it when it takes place in context. Approaches for conceptualising team mandate and effectiveness have tended to take two forms.

On the one hand researchers (Bales, 1950; Kretch *et al.,* 1962; Bell, 1992; Wallace and Hall, 1997b; Teare *et al.,* 1996) have tended to use a 'teamcentric' inside-out approach which appraises teamwork in terms of the input-process-output model. By dint of their socio-technical interventionist agenda, a significant body of literature on teamworking tends to adopt this approach mainly because it lends itself more readily to the prescription which accompanies advice to managers within organizations about how to build and maintain effective teams. Bell (1992) for instance distinguishes four interlinked characteristics of effective teamworking namely; objectives, procedure, process and review:

> Objectives need to be agreed, shared and clearly understood, and subdivided into a number of tasks. Procedures for decision making and planning should involve all members. The resulting processes for carrying out the tasks should be clear to all team members. These procedures should be reviewed frequently in terms of how far they are facilitating the achievement of team objectives at the time [...].
>
> (Bell, 1992:126)

Although no specific examples for each characteristic of teamworking is provided, objective setting and review are self-explanatory. It is however, more difficult to pinpoint what specific acts constitute procedure or process activities. With specific reference to conflict management, Wallace and Hall (1997a) subdivide effective teamworking into

input, process and output activities, where input denotes the contribution of individual team members, process denotes the internal and external mechanisms which facilitate teamworking (e.g. participation, communication and relationships), with output concerning itself with decision making and implementation. Teare et al. (1996) differentiate between team processes and team functions while Van der Vegt and Van der Vliert (2001) propose outcome interdependence between individuals within teams as constituting moments of team process.

There exists in literature, on the other hand, an 'outside-in' perspective to the mandate of teams, within which teams are conceptualised not only in terms of their internal processes, but also in terms of their relationship with, and embededness to the mother-organization and/or other organizations. This is what Van der Vegt and Van der Vliert (2001) describe as interdependence between teams. Within this paradigm (Sundstrom *et al.*, 1990; Ingram and Desombre, 1999; Huczynski and Buchanan, 2001), the team mandate is expressed in terms of what differentiates teamworking in one team from team working in another; the focus being on the nature and extent of their access and boundaries within organizational systems.

A case in point is Sundstrom *et al.*'s (1990) ecological model, wherein effective teams are judged not only in terms of their intra-team dynamics (viz; norms, cohesion, roles and interpersonal processes), but also in terms of their boundary interactions, by which is meant the nature and extent of team differentiation and external integration. As part of their framework for teamworking, Sundstrom *et al.* (1990) posit that the organizational context is the single most important variable in the success of teamworking and cite the seven features which make effective teams as being:

- Organizational culture
- Task design and task technology
- Mission clarity
- Autonomy
- Performance feedback
- Rewards and recognition

- Training and consultation, and
- The physical environment

(1990:29)

Similarly, Parry *et al.* (1998), contend that teamworking is best understood from an organizational perspective rather than through a set of narrowly defined teamcentric properties. They argue that it is because of teams' embededness within the unique sets of cultural and historical legacies that they can deliver their best advantage. This is because culture and leagcy

> [...] provide a methodology for shifting coordination
> from mechanisms mediated through external control such as
> direct supervision, to those mediated through internal control,
> such as mutual adjustment and shared purpose [...].
>
> (1998:167)

In this respect, their view is acutely critical; it begins to make explicit the political 'ironic paradox' subsumed within organizational aspirations to teamworking:

> [...] greater domination through teams than with
> bureaucracy – a far cry from the liberating view of teams
> frequently upheld in much of contemporary thinking [...].
>
> (Parry *et al.,* 1998:68)

The advantage of 'outside-in' models over the 'inside-out' perspective lies in the opportunities for the scrutiny of team relevant factors such as conflict and performance, which do not always originate in teams but whose impact impinge crucially on teams. For the purpose of this paper therefore, it pays to examine teamworking from a combination of both 'teamcentric' and ecological perspectives.

2.6 Conclusion and Conceptual Rationale

What this literature review has shown, is the variety of positions on how teams and teamworking should be viewed. It has revealed that apart from a tiny minority, the bulk of studies on teamwork have tended to be based on theory-making and prescription. The

review has also indicated a paucity of research in teamworking within real, natural teams in organizational contexts. This research gap is even more evident in educational contexts where the few studies which exist, have tended to be either syntagmatic in approach, or vaguely predicated on educational examples, falling short of giving a paradigmatic/longitudinal account of how teams work in fact. The ambition of this case study therefore, is to begin to fill that void by providing as realistic as possible an account of the nature and extent of teamworking in two secondary schools, in the hope that judgements could be made about the extent to which management theoretical conceptualisations on teamworking, converge with educational practice at the 'chalk face'.

Section 3

Research Methodology

This section addresses the methods and methodology of the project. It examines the role and strategy of the researcher, data collection methods and the conduct of the project, as well as methods of analysis and the rationale for methodological choices. It also includes a discussion of ethical considerations in as much as they affect the conduct of the research. It therefore makes sense to start with a summary of the key questions being addressed by the project since these are what the methodology ultimately has to relate to. Table 1.1 below (reproduced from section 1) is an operance chart of how the data collection methods address the key questions of the study.

Project Key Question	Data Collection Methods	Related Conceptual Themes
What understanding do teams and their leaders have of their roles?	- The Belbin Self-Perception Inventory and the five minute interviews. - Field notes as diary entries. - Incidental observations.	- Team roles versus functional roles. - Self-perception. - Leadership theory.
How are these roles deployed in action?	- Recorded observations. - Five-minute interviews. - Field notes.	- The 'Hawthorne Effect' - Group task and outcome interdependence. - Intradependence. - Espoused theories and theories in action.
What tasks and processes identify the groups as 'teams'?	- A categorisation of tasks and processes deduced from observations. - Documentary evidence. - Field notes.	- Team interaction theory - Team typology and the nature of joint work. - Teamworking literature.
How do team members interact?	- Recorded observations. - Bales' Interactional Process Analysis. - Grounded theory. - Field notes. - Five minute interviews.	- Interactional dynamics. - Leadership. - Team management. - Conflict management. - Natural versus experiential teamworking contexts.
What factors in the schools' organizational	- Documentary analysis of the schools'	- Team interdependence - Organizational behaviour

contexts (culture(s), structure and politics) work for or militate against effective teamworking?	improvements plans. - Field notes. - Grounded Theory. - Deductions from observations.	(structure, culture and politics). - Ecological frameworks for team effectiveness. - Models of organizational co-ordination.

Table 1.1: Relationship of Research Questions to Data Collection Methods and Conceptual Themes.

3.1 Research Rationale and Research Role

The rationale for seeking to examine team practices stems from this researcher's own intellectual curiosity arising from working within teams in schools and from the pedestrian need to gain knowledge about teams, deemed (Mintzberg, 1983; Oldroyd and Hall, 1991) to be the core operating part of organizations (schools, in our case). From a personal perspective, given that the past eight years of this researcher's work within schools has principally involved managing a team or group of some sort towards achieving a given goal, it seemed sensible to deconstruct and research the 'team', the better to understand how it functioned in real contexts and then, as a manager, to use the ensuing understanding to achieve school improvement objectives more effectively.

However, the paramount stimulus for this research is the desire to contribute to the body of propositional and illustrative knowledge 'out there' on teams and teamworking from a school-based perspective. The desire to reconcile research and practice is now a well-established tradition in educational management studies (Nias *et al.,* 1992; Lieberman and Miller, 1990; Fullan and Steigelbauer, 1991; Crawford *et al.,* 1994; *inter alia*). Cognisant of the debate as to whether or not educational research is best carried out by teachers themselves (Weiner, 1989; Stenhouse, 1975; Hammersley, 1995), the view taken in this paper is one which views inquiry and action as inextricably linked in educational management practice. When the researcher's professional circumstances changed such that it was possible to conduct longitudinal studies within two different schools, the possibility of access to valuable data begging to be investigated became a distinct opportunity. This research project has therefore emerged from the convergence between the researcher's particular circumstances and an involvement with the intellectual rigour of research.

It follows from the above that the overarching research role of this researcher has been that of an 'interested researcher' as well as a 'change agent' (Bennett, 1995:27). This stance emerged both from the researcher's own professional practice and from the conduct of the project. When access to the research contexts was sought and acquired, the active involvement of the research participants encouraged feedback and review, such that the teams involved benefited from their involvement with the study. The choice of this approach, which aligns with Loucks-Horsley and Hergert's (1985) People Centred Action model, itself emanating from the democratic research paradigm, was conscious and informed.

During data collection, the researcher's role oscillated between that of being a complete participant within the teams under examination and being a participant-as-observer, depending on the level of involvement with the content and proceedings of the meetings that were being recorded. For instance, in School A where some of the meetings were being chaired by this researcher, there was a keen awareness of the so called 'observer's paradox' (Labov, 1972) where one was being required to be an active participant in a process of which one was also supposed to be a keen and distant observer. However, in meetings were the researcher was just another team member, levels of distance and detachment (Cohen *et al.,* 2000), as well as awareness of causality and intentionality of others' behaviours, were more in line with the typical characteristics of an observer's role. This quasi-duality of research roles would engender ethical and practical conflicts, challenges and opportunities, which will be discussed under ethical considerations below.

3.2 Research Strategy

According to Merriam, a case study results from the resolve to

> [...] focus an enquiry around an instance [...which may be] the unit of analysis or the case, an individual, a program, an institution, a group, an event [...].
>
> (1988:44)

Because this study looks at an instance of educational action viz; how teachers work together to secure educational goals, this study could easily be styled an 'educational case study' in the sense that its key concern is

> [...] neither with social theory nor with evaluative judgment, but rather with the understanding of educational action [which] enriches the thinking and discourse of educators, either by the development of educational theory, or by refinement of prudence through the systematic and reflective documentation of evidence.
>
> (Stenhouse, 1975:50)

As discussed in the literature review, the bulk of educational management thinking emanates from developments in management theory within large private sector organizations. The case being made here is this that, as schools have peculiar structures, cultures and goals which are markedly different from such organizations, it pays to develop strands of evidence which describe and illuminate educational management practice, in the hope that it will enrich educational management theory discourse. The study therefore subsumes the inductive and theory-building assumptions on which qualitative studies are based in the sense that it seeks to discover, understand and gain insight (Wagner 2000) into the processes of teamworking within the cases being studied, in order to provide an illustration of what teamworking within the cases look like.

The strategy used in the study is that of a dual-case embedded descriptive study (Yin, 1984:147) based on pattern matching in contexts which have more homogeneity than differences. In general, case studies make it possible to

> [...] investigate a contemporary phenomenon within its real life context, when the boundaries between the phenomenon and its context are not clearly evident [...] its strength lying in its ability to enable the understanding of complex events and circumstances, where behaviour cannot be manipulated.
>
> (Yin, 1984:23)

The choice of an embedded design made it possible for team-relevant data to be examined at more than one level of analysis. This was dictated by the logical difficulties with generating meaningful insights about teamworking without forays into individual team members' actions and behaviours, such as occurred with the 'five minute interviews' after team meeting recording sessions. As an embedded study which evinces findings culled, on the one hand, from individual and team level data, and from the pastoral and curriculum team areas on the other, the embedded dual case study design makes it possible to generate a large number of potentially relevant variables, thereby increasing the study's own internal validity. Yin states that,

> [...] the evidence from multiple cases is often considered more compelling, and the overall study is therefore regarded as being more robust.
>
> (1984:149)

The view taken here is that, in the process of dealing with the complexities and subtleties of the cases themselves, which are of sufficient interest to merit investigation in their own right (Bassey, 1999), the sum total of contextual data provided by the two school contexts being studied, in addition to the use of dual levels of analysis, would generate findings more likely to be applicable to a larger pool of contexts than those being studied in this project. In instances where a full understanding of the cases leads to instances of situational similarities with other environments, the verisimilarity of findings also enhances the study's external validity to the reader.

3.3 Data Collection Methods

The sources of evidence used in the study comprised:-

- Four sets of **Belbin's Team Role Self-Perception Inventory**[12] (1981), filled in by the members of each of the teams observed; amounting to a total of 38 Belbin's SPIs for the whole study (see Table 3.1 below). The teams involved are referred to in the study as 'Team 1', 'Team 2', 'Team 3' and 'Team 4', accompanied by a generic team description as in 'Team 1 Pastoral'.

[12] Heretofore referred to as Belbin's SPIs (See Appendix B).

	SCHOOL A		SCHOOL B	
Number of Teams	2		2	
Team Description and Number of Team Members	1. Pastoral	13	3. Curriculum Coordination	13
	2. Departmental	7	4. Faculty	8
Total Belbin SPI per School	**20**		**21**	

Table 3.1: Belbin's SPI Distribution per School/Team

Of the 38 SPIs given out, 91.9% were returned with data that could be analysed (see Table 3.2 below). Although a response rate of 100% was hoped for, given that every member of a team counts in terms of their effect on overall team dynamics, it was felt that a 91.9% response rate was credible enough for the study to proceed with. The circumstances surrounding the non-responses are significant and will be explained in section 4.

	SCHOOL A		SCHOOL B	
Handed out	20		18	
Returned in Analysable Form	Team 1	13	Team 3	8
	Team 2	6	Team 4	8
Response Rate per School	19/20 = 95%		16/18 =88.8%	
Percentage Returns A+ B	**91.9%**			

Table 3.2: Belbin's SPI Return Rates

- **Interactional process analyses (IPAs)** of a total of twelve meetings over a period of two years, collected in the form of video recordings of observed meetings. There were three recorded observations per team. Adapted from Bales' (1950) categories for analysing small group (verbal and non-verbal) interactions[13], the IPAs are used as the primary observation schedules for processing data from

[13] See Appendix A

video recorded meetings. They are supplemented by other 'micro' schedules[14] which record the other significant 'process' aspects of the meetings such as decision making, problem solving, functional roles, self oriented behaviour and norms (Williams, 1994), from which inferences about teamworking are made. One IPA is used per meeting observed.

- **Researcher's diary** consisting of notes of the 'five minute informal interviews'. This included bits of information, experiences, interactions and other miscellaneous field notes. These have been collected since the beginning of the study in January 2002. The majority of entries in the diaries have been questions and answers in the five minute interview format, although there is a considerable amount of 'free flow' entries relating to tones, feelings and other comments which do not directly relate to the five-minute-interview topics.

- **Documentary evidence** taking the form of team development plans, agendas and minutes from meetings, from which the mandates of teams as well as the intention and the nature of joint work is described. School Improvement/Development Plans, SEN and EMAG Registers and Ofsted and Panda Reports from both schools were also used to source data for the study.

The rationale for 'triangulating' (Faulkner *et al.,* 1990; Hammersley, 1990) sources of evidence as above, was to achieve 'construct validity' (Yin, 1984:144) through findings arrived at by converging evidence. This ensures reliability acquired from analytically generalised facts and impressions that are multilaterally verified. It is this internal cross-referencing which makes the so-called '*petites généralisations*' (Stake, 1994:8) possible in this study. *Petites généralisations* refer to the congruency of judgements made from multiple sources of data located within the case itself. This must be distinguished from '*grandes généralisations'* (Stake, 1994:9), relating to propositional generalizations and predictive assertions from the positivist paradigm, which an increasing number of qualitative research methodology theorists (Walker, 1980; Merriam, 1988; Guba and

[14] These are written up as tables e.g. Table 4.2, or form grounded data in descriptive texts.

Lincoln, 1989) contend, is not, in its classical sense, the business of case studies to pursue. As Schofield puts it;

> [...] at the heart of the qualitative approach is the assumption that a piece of research is influenced by individual attributes and perspectives. The goal is *not* [*sic*] to produce [...] results that any other careful researcher in the same situation [...] would have produced. Rather, it is to produce a coherent and illuminating description of, and perspective on, a situation that is based on and consistent with detailed study of that situation.
>
> (1993:95)

3.4 The Research Sample

Sampling for the study was done on a non-probability (Cohen *et al.*, 2001) basis in the sense that the researcher targeted particular groups, in full cognisance of the fact that individuals in the groups might not be representative of the populations of Schools A and B in the statistically exact sense. As discussed above, it was not the aim of the study to evince '*grandes généralisations*'. This notwithstanding, the choice of groups to be involved in the study was purposive in terms of what this researcher judged to be typical (Cohen and Manion, 1994) of the types of teams which operate at the middle belt of secondary schools. It was judged on the basis of researcher access to the teams, the need to circumscribe the scope of the study, and the prospect of obtaining thick, well-informed insights into the interactions within the teams under study, that the four teams selected were the most fit-for-purpose.

Teams 1 and 2 in School A were examples of the 'Pastoral/Curriculum' divide common in most secondary comprehensives. In School B, an attempt was made to secure access to a pair of teams which mirrored those in School A. While this was possible for Team 4 (a Faculty similar in structure and in work to Team 2 in School A), negotiations for access to a pastoral team in School B were unsuccessful because the members of five teams

contacted were unwilling to take part in the research[15]. Because what was being looked at by the research was team interaction itself rather than the similarities between pastoral and curriculum-type teams in different schools, it was judged more ethically sound (see section 3.7) to work with Team 3 School B (which is a middle-level cross curricular Key Stage 3 co-ordination team), than to try to shoehorn participation from members of a pastoral team, whose initial unwillingness might have affected the quality of the data to be collected. The decision about the size of the sample (four rather than say ten teams), was imposed by the need to circumscribe the scope of the study while providing enough variation in data within and between schools such that comparisons and correlations were visible, but manageable enough to enable depth in analysis. As discussed in section 3.2, the case study design makes this possible without necessarily precluding the robustness of the research.

3.5 Conduct of the Study

Data for the study was collected in two separate schools in two successive years. The study is longitudinal in the sense that the researcher spent an uninterrupted year collecting data from each of the teams concerned. As a native participant in both case contexts, the researcher had full access to all the activities in which the teams were involved.

In both Schools A and B, meeting time had been spent discussing the procedures for data collection. In the case of the Belbin SPIs, its possible benefits for the team were discussed, with care taken to mention that it was about how one saw oneself, and therefore there were no right or wrong answers. In School A, the Belbin SPIs for Teams 1 and 2 were conducted at the end of a meeting. By previous mutual agreement, both teams had decided that it would be more expeditious for them to fill in the questionnaires while the researcher was present to clear up any technical difficulties; for instance in terms of the distribution of the allocated 10 points per section of the questionnaire. The

[15] It was deemed that the Year 13 and 12 sixth form teams in School B were not large enough to generate the types of data needed for this study and therefore they were not asked.

questionnaires in School A were therefore returned almost immediately. In School B, while Team 4 decided to complete the SPIs during a team meeting, Team 3 members elected to take their SPIs home. It was agreed that the return date would be a Monday, two days and a weekend later. On return, the SPI data was analysed following Belbin's (1981) Team Role SPI analysis chart[16]. The emerging team roles findings in School A were returned to respondents individually four months later in a sealed envelope, with an extract from *Team Roles at Work*, 'Phrases and slogans that project leading team roles' (Belbin, 1993:80-81) attached, along with an invitation to discuss their SPI results with the researcher should they wish to. This was also the case in School B a month after the SPIs were returned.

Regarding the observations, the researcher attended all the meetings of the target teams concerned in the research years. Each team was videoed three times during the year. The three recorded meetings per team, earmarked for systematic analysis were spaced out more or less evenly over the year. Table 3.3 below, shows the time-series distribution of observational data collection points for each team.

Team	Observation 1	Observation 2	Observation 3
Team 1 (Pastoral)	January 2002	April 2002	July 2002
Team 2 (Department)	February 2002	March 2002	July 2002
Team 3 (Curriculum)	January 2003	May 2003	July 2003
Team 4 (Faculty)	October 2002	March 2003	July 2003

Table 3.3: Distribution of Video Recordings per Team.

The recordings proved a more delicate affair to negotiate and manage. Because the pilot study had indicated a more or less general aversion by teachers to being photographed at work, recordings were preceded by long periods of one to one negotiations with each member of all the four teams. This was not intended to achieve formal consent as this had

[16] See Appendix B (section 3).

been obtained earlier on in the year[17] but to reassure participants about the purpose of the study and to secure their personal psychological consent. Again, the process of what would be recorded and how the recording would be done was discussed at a meeting prior to actual recording, and dates agreed. Questions were answered as honestly as was possible without introducing bias to behaviour at the recording sessions. Experience from the pilot study had shown that the longer the time lapse between the question-and-answer session and the actual recording, the less affected by the camera teachers tended to be. The minimum meeting-to-recording time lapse in School A was two weeks. In school B this period was extended to one month. This was because the two school cultures were different. While School A was relatively used to inspections and media intrusion[18], School B comparatively, was not. In addition, the researcher was better known in School A, owing to having spent six years there - most of which were spent researching other projects. There was therefore more tacit trust of the researcher in School A than in School B.

In most of the recording sessions, the procedure for filming was similar. The camera was mostly fixed on a high tripod focussed on as many faces as was practically possible and left unattended for most of the time (90%). Several factors explain this strategy. Jacobs *et al.* (1999) advise that in studies involving the collection of data via video in multiple sites and where multiple encoders are relied upon for data collection, it is important for interrater reliability that norms of videography be agreed upon in advance in order to minimise biases introduced through selective information gathering. Interrater reliability refers to the likelihood of two encoders of raw data arriving at the same coding patterns, with statistically insignificant variations within and among tapes (Jacobs *et al.,* 1999). However, in essentially qualitative studies such as this one, where the researcher is the sole encoder, Boyatzis (1998) submits that interrater reliability is achievable through a consistency of judgment in eliciting themes from raw data. Therefore, as the researcher was present at and participating in all the data collection moments, an attempt was made

[17] An aspect of negotiations at transfer to School B was that they would allow access to conducting the research.

[18] School A had had three Ofsted inspections in as many years and its head teacher encouraged media attention to the school's activities and achievements.

to norm the variables between the different research sites by addressing two competing pressures inherent in direct observational data collection techniques. The first and principal constraint was the need for the researcher to make data collection as unobtrusive as possible to minimise 'subject reactivity' (Cohen *et al.,* 2001: 311) known also as the 'Hawthorne Effect' (Greenberg and Baron, 1997:13). This refers to the effect of the 'researcher on the researched' (Cohen *et al.,* 2001) in terms of behaviour modification under observation, such that what is observed is not natural or typical of the subject in a given situation. A second constraint, was the desire to make the study as true an account of the cases, such as would make the study complete enough to be valid in its own right.

The 'fixed camera' technique had this inherent weakness that since interactions within meetings tended to be dynamic and fast flowing, with non-verbal behaviour especially being fleeting and instantaneous, loss of potentially significant non-verbal data (e.g. visual expressions) was possible. To counteract this loss, at each of the recording sessions, there were critical moments (Wragg, 1994), such as those intensely illustrating a particular feature of behaviour, where the researcher felt it necessary to move the camera to follow the flow of turn taking. When this was not possible, notes were taken. Data collection by video recording was therefore a balancing act between the need to remain as unintrusive as possible in order to enhance encoding reliability on the one hand, and the need to collect as accurate a set of information as was required to ensure that the data collected reflected as true and as rich a reality of the case itself, as was practically possible, on the other.

As far as the conduct of the 'five-minute interviews' were concerned, the choice of the respondents was based on the simple non-probability sample principle (Cohen *et al.,* 2001), although it could be argued that because it was planned to spread interviews more or less equally among the four teams involved, there was a degree of stratification involved in the choice of sample for the 'five minute interviews'. The interviews tended to be informal and unstructured and typically took place immediately after meetings. The interviews were conducted away from the group, mostly in an adjoining room. Although

the fact that notes would be taken had been addressed in the pre-data collection meetings, a request was made that the researcher jot down some notes of the 'talk'. In the strictest sense of the word, the interviews were therefore 'unrecorded'. As the talks were aimed at seeking discovery and/or clarification of team members' 'critical psychological acts' (Wragg, 1994:15) rather that at gathering primitive facts, the stimuli for the talk tended to be a single open ended question which sought the reaction of the team member based on an event judged by the researcher to be significant, that had happened during the meeting. For instance, if a team member had shown any marked reaction (indifference, hostility, support, creativity, prolixity etc), then the focus of the talk would be that behaviour. As well as the main points of the team members' response the notes also recorded what kind of question was asked (for instance 'How...?', 'Why...?', 'What do you feel about...'), as well as a description of the respondents feeling or mood. Unlike in a typical interview, the decision to resist imposing an *a priori* set of questions to be addressed in the 'five minute interviews' was taken to counterbalance the structural 'straitjacket', which the observational schedules used to encode the video-recordings, might impose on the findings of the study.

At the analysis stages, after data collection was complete, the need to find emerging themes from the 'talks' imposed itself. Because the researcher was a participant in all the teams involved, some of the 'interviews' were check-backs and follow-ups which addressed certain pre-full analysis themes. These resulted from a perceived need to revisit certain respondents in order to address aspects of emerging data patterns. In this respect, data collection and data analysis for this study were almost simultaneous. According to Merriam,

> [...] without ongoing analysis, one runs the risk of ending up with data that are unfocussed, repetitious and overwhelming in the sheer volume of material that needs to be processed.
>
> (1998:124)

3.6 Method of Analysis

The analysis of teamworking was structured around group working processes and included the following dimensions:

	Group Process	Measurable Indicators
1.	Quality of Communication	Interruptions, gaps, overlaps, communication networks. Turn taking frequency, turn duration.
2.	Direction of non-verbal and verbal communication	Who spoke to whom? Other indices, facial expressions, gaze, non-verbal speech markers.
3.	Content of communication	Types of utterances made.
4.	Decision making style	How decisions are arrived at. Leadership deployment.
5.	Problem solving style	How problems are dealt with and solved.

Table 3.4: Teamworking Processes - Analysis Foci.

3.6.1 In Search of a Code

The necessary analyses for the study began during data collection but were mostly done *post hoc*, using the pre-existing self-perception team role analysis inventory (Belbin, 1981)[19], and the 'Set of Categories for the Analysis of Small Group Interaction' (Bales, 1950)[20] which Bales developed as a classification of translatable concrete indices to general interactional behaviour. According to Bales, the model is

> [...] a type of content analysis in the basic sense, but the type of content which it attempts to abstract from the raw material of observation is the type of problem solving relevance for each act for the total on-going process [...].
>
> (1950:258)

Bales' interactional process model, was used to obtain detailed descriptions of team working from categorising the nature of verbal and non-verbal behaviours. He classified group interactional behaviours into task and socio-emotional positive and negative acts, from which could be derived a theory of group functioning. By showing how groups

[19] See Appendix B
[20] See Appendix A.

dealt with certain issues like control, tension management and integration, one could begin to understand the internal dynamics that made teams such powerful and peculiar social entities. Galton *et al.,* posit that

> [...] in successful observations [...], the categories on the schedule and the criteria for determining their use should be sufficiently unambiguous and explicit to ensure that any observers using it will arrive at identical descriptions of a particular occurrence [...].
>
> (in Scarth and Hammersley, 1993:191)

Most existing process analysis schedules for observational data (Barett, 1989; Cohen and Manion, 1994) emanate from, or just replicate some of the categories in Bales' Schedule. For the purpose of this study, the temptation to create yet another model for the thematic encoding of the data collected was great, but it would have lacked the sophistication of Bales' model especially in terms of his use of the so called 'frames of reference', to wit; orientation, evaluation, control, decision-making, tension-management and integration (Bales, 1950:258), which enable data collected to be systematically abstracted to arrive at the quality of team dynamics as a whole. As Bales put it,

> [...] when concrete indices (and classifications) [*sic*] are not clearly related to the variables of a general theory of human behaviour in society, they tend to be *ad hoc*. Under these conditions , they are only with difficulty applicable.
>
> (1950:257)

In a similar vein, as far as the team role types were concerned, a parallel argument to the one above, applied. Once again, of all the significant models of group role types seen (Benne and Sheats, 1948, Woodcock, 1989, Mcgerison and McCann, 1990), none had been described with as much intention for translatability as Belbin's SPIs (1981)[21]. It was therefore judged that inasmuch as the focus of analysis in this paper was encoding

[21] The argument regarding the translatability of Belbin's SPIs has been made in the Literature Review in section 2.

and analysing observed group roles and interaction, Belbin's and Bales' models were the two 'best fits' for this study. They were designed for replication, and are purposively 'data driven' (Boyatzis, 1998:35). Furthermore, they were developed in the context of the type of data (notably, composition and process and composition data within teams respectively), which this study was seeking to encode. They therefore enabled this researcher to stay as close to raw data as possible (Strauss, 1987).

Apart from the obvious credentials of validity which critically peer-reviewed models offer in themselves, the facility which the two models provide for enabling the analysis of 'fixed' (e.g. single characteristics of role, single acts) and 'dynamic' (viz; reactions, responses and role enactment) encodable moments within the instance (the meeting), as well as within the units of analysis (viz. the individual level, the team level) as are relevant to this particular study, these two models make further development in theory building more likely than not. This is because they provide a point of departure 'from the shoulders of giants' from which this study could develop an even more refined body of theoretical inferences. According to Boyatzis,

> [...] as long as the current researcher is using the codes with the same or similar raw information, [...] building on earlier research can be an effective way for the researcher to contribute to the development of knowledge and not always feel as if he or she has to "invent the wheel" [*sic*] each time he or she wants to go somewhere [...].
>
> (1998:37)

It follows therefore, that combined with the use of video recording which allowed the rewind and replay of excerpts, the use – particularly - of Bales' IPA, normed categorization. This made it possible for the study to reduce the likelihood of '[...] subjective, biased, impressionistic, idiosyncratic' (Cohen and Manion, 1994: 326) coding and interpretation, which could result from the use of previously untested tools or from work with an unrecorded corpus.

3.6.2 Data Analysis Approach

To begin with, because of the highly structured nature of the data evinced from the Belbin SPIs and Bales' IPA, initial data analysis tended to be of a deductive quantitative nature. At this stage the output was a statistically comparative analysis of manifest behaviours and was aimed at teasing out differences, variations, correlations and similarities in teamworking patterns between individuals and between teams. The quantitative data therefore enabled the mapping and categorization of the social phenomena from which hypotheses could be generated and tested further. However, given that the study aimed to describe the *process* of social interaction - a dynamic as opposed to a static phenomenon - quantification alone carried the inherent risk of

> [...] reducing social phenomena to a set of categories [...] abstracted from the original context and unambiguously pigeon-holed, masking the rather fluid, uncertain and negotiated meanings, evident when interactions are examined in context.
>
> (Swann, 1994:47)

This is because, if the case study's objective is to produce as real an account of a phenomenon as is possible, it being understood that social phenomena cannot be validly abstracted from the contexts which give them meaning, any analysis of manifest behaviour which does not take into account the latency of text content, the connotative character of language, the change in the indicators that carry meaning in socio-cultural environments and the constraints of current situations, is bound to consist of short cuts which do not arrive at a true picture of the case. According to Bos and Tarnai,

> [...] since there is no question that texts have a symbolic content alongside their manifest content, it is impossible to proceed [...] on a purely quantifying basis because quantifying selection abridges the entire context.
>
> (1991: 665)

Therefore, in order to track down the substantive meanings within the case, a qualitative analytic-inductive approach was used to interpret and test the reliability of the

quantitative data produced, expressed in terms of 'consistency of judgement' (Boyatzis, 1998:144). This took the form of 'grounded' (Nias, 1991, Brunetto, 2001) theory, wherein findings were conceptualised from 'contrast, emphasis, meanings, experiences and [...] descriptions [...]' (Coolican, 1990:36), based on interpretations from 'soft data' (Ball, 1990:32). Soft data was sourced from the post meeting interviews and field notes of contextual facts surrounding the behaviours under study which did not lend themselves to ready quantification. Jones (1987) posits that the 'grounded' approach to data analysis works because,

> [...] rather than forcing the data within logico-deductively derived assumptions and categories, research is used to generate theory, which 'fits' and 'works' [*sic*] because it is derived from the concepts and categories used by the social actors themselves to organise and interpret their worlds.
>
> (1987:25)

It follows from the above, that the approach to data analysis in this study is combined. This happens when quantitative and qualitative data are used spirally (Lacey, 1976) to illuminate each other. Combining quantitative and qualitative approaches at the analysis stage provided the best chance of achieving as complete a description of the phenomenon as was possible (Bird, 1995). Used interactively, the two approaches helped to refine interpretation, build theory and generate valid conclusions.

3.7 Ethical Considerations

Cavan defines ethics as the

> [...] principled sensitivity to the rights of others. Being ethical limits the choices we can make in the pursuit of truth. Ethics say that while the truth is good, respect for human dignity is better [...].
>
> (1977:810)

Cassell and Symon (1994) point to differences in research design and research traditions as evincing variations in the relative significance of the various ethical issues, based on the degree of power and control which the researcher has over the researched; with participant observational research appearing in the lower regions of the types of studies likely to cause ethical harm. This notwithstanding, within observational studies such as this one, Bassey (1998) has identified two points at which ethical dilemmas are most likely to occur - at data collection and at dissemination of findings.

In an attempt to proceed ethically, the key guiding principle in the conduct of this study was that of informed consent (Berger and Patchner, 1988), by which individuals could choose whether to participate in the project after being apprised of the facts that were likely to influence their decisions. This also implied that the participants could exercise 'informed refusal' (Cohen *et al.*, 2000:50) within which participants could decide to pull out of involvement with the project at any time. This was very important because using highly intrusive video recording as one of the main methods of data collection, the risk of causing harm by invasion of privacy and breaches of anonymity were very high. Written permission for access from the two Head Teachers were therefore sought and obtained, after which explicit individual participant consent was pursued and acquired. This was followed by a pre- data collection session with participants (see Conduct of the Study: section 3.6 above), once individual consent was secured. In the pre- data collection sessions, after the general purpose of the data collection exercise was explained, explicit assurances were given about the right of participants to opt out, as well as about the fact that the data would be analysed in a manner which guaranteed anonymity and respected confidentiality.

The value of this researcher being an insider observer with almost unlimited access to confidential information was upset by moral conflicts about managing researcher 'cover' (Cohen and Manion, 1994:323) as 'one of us'. As Bassey's points out,

> [...] participant observation is a schizophrenic activity in that one usually participates but not to the extent of becoming totally absorbed in the activity. At the same time one is participating,

> one is trying to stay sufficiently detached to observe and analyse.
> It is a marginal position, and personally difficult to sustain [...].
>
> (1988:94)

This was not made easier by the researcher's position as a senior member of staff in both Schools A and B. There were worries about role conflict which could emanate from research participants, perceiving a video camera-wielding senior member staff as being a 'spy' for senior management. In this regard, the fact of the researcher belonging to the teams which were being observed turned into an advantage on account of team members being accustomed to the presence of the researcher amongst them 'in the line of duty'. A lot of effort was expended reassuring team members that this research was primarily for academic purposes and that none of the schools featured had contributed in the funding of the research. A lot of the goodwill which the research enjoyed was a result of the relationships which existed prior to data collection. Any self consciousness which could have existed at the first video recording had dissipated by the second, overtaken by the intensity of the work to be done in the meeting themselves.

On the ground, making decisions about where to draw the line between the use of formal observational data for which permission had been overtly sought, and other data (such as casual incidents, chance events, gossip etc), stumbled upon on the day to day prosecution of this researcher's job in the schools, proved difficult. As a consequence, issues relating to the differentiation between raw data and the researcher's interpretation were systematically subjected to triangulation, in order to ascertain that interpretative claims were valid and backed by evidence, usually from more that one source. The quest for internal validity therefore, also became an ethical aspiration.

Mindful of the fact that what may (or may not) be ethical is not absolute (Hitchcock and Hughes, 1989), this researcher relied on situational common sense, and was guided by the principle that data collected was not to be used in a manner which subverted the support of the participants or left them feeling humiliated and exposed. Two of the ways in which this is operationalized in the study are, through deletion by name coding such that participants are not identifiable, and; by micro-aggregation (Cohen *et al.,* 2000: 63), such

that referential identification from the matrix of happenings does not seep through in data reporting. Not doing this would constitute a betrayal of the trust and support which this researcher continues to enjoy from members of the four teams. This was very important because, as a teacher-researcher, any ethical breaches would not only affect the success of the project, but also the carrying out of the researcher's relationships-based job.

3.8 Conclusion

In this section the methodological choices which underpin the study have been made explicit. The rationale for the structure of the research as an embedded dual case descriptive case study has been established as being a result more of the researcher's own circumstance and research role than of an express attempt to implement a particular research design. This researcher's attempts to achieve internal and external validity for the project have involved forays into the practical and ethical dilemmas of constructing observation-based research in a milieu which does not lend itself naturally to intrusive methods of data collection. The fact is that the methodological choices made in this section are, in essence an account of the path of the problem solving actions taken by this researcher to achieve a valid account of the case(s). Walford's position on research design planning aptly describes this researcher's experiences in arriving at the design rationale for this project in the particular research context of schools:

> [The] idealized conception of how educational and social research is designed and executed, where research is carefully planned in advance, predetermined methods and procedures followed, [... which] seek to present educational and social research as being 'scientific' [*sic*] in its methods [...], is actually a fraud. [...]. The standard way in which real research is often written for publication perpetuates what is in fact a myth of objectivity.
>
> (1998:1)

Section 4

Data: Analysis and Interpretation

Data analysis for this study will be structured around the two cases - School A and School B – which make up the study. For each of the two cases in this study, the objective was to investigate the following questions:

- What understanding do teams and their leaders have of their roles?
- How are these roles deployed in action?
- What tasks and processes identify the groups as 'teams'?
- How do team members interact?
- What factors in the schools' organizational context (culture(s), structure and politics) work for or militate against effective teamworking?

This section of the project will address the first three of the key questions above. The third and the fourth key questions will be looked at in detail in section five. A summary of how data collection methods relate to the key questions of this study and how these link to the main conceptual themes is provided in Table 1.1 (section 1.3). Data collected from the four teams in School A and School B, was processed and is analysed from three heuristic angles, viz.

- from how the teams were formed (i.e. the generative perspective),
- from what they did (i.e. the functional perspective),
- from how they worked (i.e. the structural perspective).

Table 4.1 below clarifies what these perspectives entail.

	Perspective	**Characteristic Concepts**
1.	Generative	Team history. Team evolution and growth. Team culture.
2.	Functional	Team tasks. Nature of joint work. Team (including conflict) management. Task interdependence.
3.	Structural	Team roles. Leadership. Team interaction and communication. Outcome interdependence.

Table 4.1 Themes addressed from the three conceptual perspectives.

These three perspectives address the first three questions of the study and are supported by the results of the Belbin SPI surveys[22], Bales' IPA[23] observational schedules and the 'five minutes interviews'. Data addressing the last two key questions come from the findings resulting from data analysis using the three perspectives, on the one hand, and from field notes supported by documentary evidence on the other (see section 5).

For the purpose of this study and, because the particular focus of this project is the process of teamworking, the structural perspective is analyzed in greater detail, with the first two perspectives serving to provide background material for understanding the context within which these teams work.

4.1 Case 1: School A

Section 1.1.1 provides the background information relevant to understanding the context of teamworking in School A.

4.1.1 School A: Teams 1 and 2 - Genesis and Evolution.

At the time when the research began, no one in the school could remember when the departments came to exist as they are. The Team 2 leader who had been in the school for 22 years, attests to the Year and Departmental structural units of the school (barring the Information Technology department which was formed in 1990) having been there when she joined, soon after the school amalgamated with a neighbouring local comprehensive in the early eighties. Teams 1 and 2 had therefore been in existence as structural entities long before the study began. Taken in its most basic sense, Bell's (1992) definition of a team as a deliberately formed unit of individuals working together, applies to Teams 1 and 2 in School A. Managers and team members regularly referred to themselves as teams and were expected to operate as such.

[22] See Appendix D
[23] See Appendix C

Such as they were, Team 1 had been in existence as a pastoral grouping for three years (dating from when the pupil cohort which they managed joined Year 7) whereas Team 2 had existed for at least the duration of the stay of its leader (i.e. 22 years). In terms of their potential for historical evolution and growth, a composition/longevity analysis of the members of the two teams in School A (Table 4.2 below) show both teams as predominantly relatively 'young', with Team 1 being more so than Team 2. In Team 1, more than half of the team (54%) had been in the team for less than two of its three years of existence, leaving only 38% who were members of the team at the time of its inception[24].

Team 1 (School A: Pastoral)			**Team 2 (School A: Departmental)**		
Length of Service in School (in Years)	**Team Members**	**Percentage**	**Length of Service in School (in Years)**	**Team Members**	**Percentage**
0-1 Year	**SD/SL**	15%	0-1 Year	**NNP/BX**	25%
≥1 - 2	**JN/SE/ UEV/ TN/BKN**	39%	≥1 - 2	**TN**	12.5%
≥2 - 5	**NE**	8%	≥2 - 5	**NE/KL**	25%
≥5 - 10	**BD/TB**	15%	≥5 - 10	**TB**	12.5%
≥10 - 20	**NN/HO**	15%	≥10 - 20	**GEF**	12.5%
≥20	**DBE**	8%	≥20	**DBE**	12.5%

Table 4.2: A Composition/Longevity Analysis of Teams 1 and 2 in School A

It follows that in School A, the impact of longevity of service to the school beyond five years is more significant for teamworking potential in Team 2 than it is for Team 1. In the case of Team 1 then, it is possible to argue that given the relative youth of the team, any growth or team evolution should be detectible from mutations in the nature of interactions during the meetings observed over the year. In Team 2, the longevity profile shows a higher likelihood for there to have been a possible history of teamworking, given that 62.5% of the members had been part of that unit for more than two years. With the same team leader throughout, the Team 2 unit had been

[24] Year teams are formed when the pupil cohort joins at Year 7. They are expected to carry on until the cohort leaves at Year 11, at which point what is left of the same team reverts to a new Year 7.

together for long enough to have a team evolution status. Whether this translated into evidence of actual effective teamworking will be the subject of analysis in section 4.1.4 below.

4.1.2 School A: Teams 1 and 2 - Team Tasks and Function

Within the functional paradigm, teams are essentially defined (Huczynski and Buchanan, 2001, also Oakland, 1989) by the degree of congruence in what they do (i.e. their tasks) and what they are expected to achieve (i.e. their goals). As all the members of the two teams were either classroom teachers and/or teacher line-managers (there being no ancillary or support staff in either team), the assumption was made that, on a day to day basis, all the members performed similar tasks. This did not constitute joint work and as such, was not analysed as part of the project. In Team 1, individual teacher specialisms did not affect the performance of their roles within the team. This was not the case in Team 2, where as a departmental team, competence in the teaching of the subjects within that department was a *sine qua non* for membership. While it is possible for there to have been instances of joint functional work such as team teaching, these fell outside the remit of this study and could not be analysed. Table 4.3 below details the type of the joint work which Team 1 Pastoral performed collectively as seen in the three meetings observed. It also notes how often issues were discussed and the nature of the decisions that were taken. The team's goals were sourced from the headline statements of its Development Plans for 2001/2002.

From the type of tasks which Team 1 Pastoral discussed and/or performed in their meetings, it is fair to say from a purely functional perspective that their tasks were complex, in that they required a high degree of individual skill and judgement. However, in terms of degree of interdependence, these tasks were merely additive in nature, as all team members did more or less the same job in the relative independence of their form rooms (Steiner, 1972); the team outcome being the sum of all the individual performances. The interdependence of the team resided only in the necessity for all members to put in their best efforts. The fact of the weekly publication of every Year Team's attendance figures in the school's bulletin, where

the low attendance scores in some forms groups ate into the high percentages of better performing forms groups, illustrates this point.

	Team 1: Pastoral Goals as Stated in School Development Plan	Team Tasks	Frequency of Occurrence (out of 3 meetings) and Output	
1.	To raise pupil attendance to 90%.	- the accurate annotation of attendance.	2	Action
		- how to manage punctuality.	1	Recommendations
		- administering rewards.	1	Suggestions
		- administering sanctions	3	Recommendations
2.	To improve pupil behaviour in and around school.	- monitoring pupils causing concern	3	Proposals
		- administering rewards and sanctions.	1	Suggestions
		-using the referral system.	1	Recommendations
		-organising form assemblies.	1	Action
3.	To raise pupil attainment.	-administering the tutorial programme.	3	Action
		- organising and supervising pupils.	1	Action
		- administering rewards.	2	Suggestions
		-contacting parents.	1	Suggestions
		- using the referral system.	3	Recommendations
4.	To Improve support for pupils with Special Educational Needs	- using the referral system.	1	Recommendations
		- monitoring, acting on, and reporting causes for concern.	3	Proposals

Table 4.3: Team1 Pastoral - Nature of Joint Work

The frequency with which shared issues recurred for discussion during meetings, and the type of decisions arrived at, indicate that Team 1 Pastoral was essentially an advisory team with a strong inclination for action. Recommendations, suggestions and proposals, which dominate the outcome profile of Team 1 meetings, illustrate its advisory function. This opens up the possibility for ambiguities in members' interpretation of decisions taken and brooks differentiation in decision enactment within their respective forms. This seeming ambiguity is a quality reflecting the fact that in schools, teachers mostly work in isolation and that, although meetings may plan action, the implementation of the action itself takes place in a context outside of the team domain. This is a manifestation of the loosely coupled structure of schools (Weick, 1976) in which parts of the structure are interrelated but also independent and separate.

	Team 2: Departmental Goals as Stated in School Development Plan	Team Tasks	Frequency of Occurrence (out of 3 meetings) and Output	
1.	Improve the quality of teaching.	-developing IT skills.	1	Action
		-learning teaching strategies.	3	Demonstration
		-moderating marking and levelling.	2	Action
		-entering pupils for exams.	1	Action
		-planning model lessons.	1	Plan
		-implementing schemes of work.	1	Recommendation
2.	Raise the attainment of boys at KS4.	-learning teaching strategies.	2	Suggestions
		-using the departmental support system.	1	Suggestions
		-organising the supervision rota.	1	Recommendation
		-reporting on pupils causing concern.	2	Action
		-auditing staff training needs	1	Action
		-learning teaching strategies.	2	Suggestions
		-using the departmental support system.	1	Suggestions
3.	Implement a departmental behaviour policy.	-administering rewards	1	Suggestions
		-supporting pupils with Special Educational needs.	2	Recommendations
		-discussing the supervision rota.	1	Plan
4.	Improve the school's assessment policy.	-discussing sample of pupils' work.	1	Action
		-moderating the grading of worksheets.	1	Action
		-using the marking protocol.	1	Action
		-learning to keep a mark book.	1	Suggestions
5.	Develop the use of rewards.	-designing a departmental rewards system	2	Action
		-organising departmental sanctions.	1	Proposals

Table 4.4: Team 2 Departmental - Nature of Joint Work

Team 2's functional profile was more skewed towards action (see Table 4.4 above). The frequency of 'Action' outcomes - twice the number in Team 1- shows that members of Team 2 Departmental were more likely to do things together (e.g. plan

lessons, moderate pupils' work, conduct audits of training needs etc.), than merely talk about them. From a purely functional perspective, Team 2 could validly be seen as a typical action team where each member contributed according to their specialty (in this case a Foreign Language) or according to their technical skill levels, as demonstrated when members were required to share the designing of worksheets enabling pupils to move up one National Curriculum level.

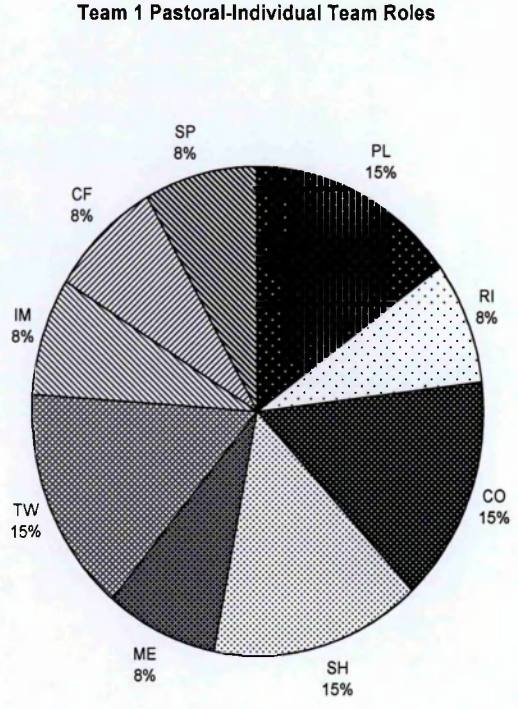
By doing so much together, Team 2 showed a higher degree of team task interdependence than Team 1, notwithstanding the similarity to Team 1 that, it was not always clear from the co-operation within the meetings, whether teachers did always implement team meeting outputs, or that they had been involved in the decision process which made them 'action packed' in the first place. This meant that as with Team 1, Team 2 tasks as demonstrated in their meetings were also merely additive, where one would have expected them to be conjunctive (Steiner and Rajaratnam, 1961) given that Team 2 operated like a project team. In conjunctive work, all inputs contribute to a singular project such as happens at operation tables in hospitals. In the case of Team 2, although the immediate outcomes of meetings were lesson plans, training schedules or marking schemes, the extent to which individual inputs had contributed to the overall goals of the team was not always certain. For instance the relationship between the individual team member's understanding of a training module, the effective application of such a module in the classroom, leading to the success of a pupil in that particular discipline, could not be causally established. This is partly because the contribution of an individual teacher to the overall attainment of a pupil cannot be directly measured and whether or not the joint actions of Team 2 did in fact lead to improved learning by pupils is yet to be established.

Unlike in Team 1, Team 2 meetings showed high levels of technical specialization. This could be attributed to the fact that as a departmental team, a special kind of knowledge was required to be a member. This is characteristic of the highly specialised nature of teachers' work in secondary education - as opposed to say, Primary or Nursery teachers.

4.1.3 School A: Teams 1 and 2 – Team Roles

School A: Team 1 Pastoral

In terms of team role[25] alone Team 1 was a balanced team in the sense that all the nine Belbin team roles were represented (see Figure 4.1 below). They therefore had the potential to complement each other and teamwork effectively. Although most roles were represented by one person, only the two members who registered as Coordinator had an equally dominant alternate team role.



KEY: SH (**Shaper**); ME (**Monitor Evaluator**); TW (**Team Worker**); PL (**Plant**); IM (**Implementer**); CF (**Completer Finisher**); SP (**Specialist**); CO (**Co-ordinator**); RI (**Resource Investigator**)[26]

Figure 4.1: Team 1 Pastoral - Individual Members' Team Roles

[25] See Appendix B, section 4 for team role type characteristics.
[26] Source: Belbin, 1993:102

The fact that SD (Coordinator/Resource Investigator) was a middle manager in another team within the school may explain his dual role type. The same argument did not apply to SL (Coordinator/Monitor Evaluator) who was new to the school and new to teaching. No other team type exhibited this tendency for team role duality within the same team. It was therefore assumed, bearing Belbin's (1993) position on team role versatility in mind, that they would interact in line with their second dominant team type role, if the characteristics of their first team role type failed to feature in their interactions within the team. When team role types were cross-referred to behaviour during meetings, it showed that SL did not exhibit any form of co-ordinator type behaviour at all. It is possible to attribute this to contextual factors such as the fact that he was new to teaching, and had not been given the positional platform from which to exhibit any chairing or organising types of behaviour. SL also mismatched as Monitor Evaluator. SD on the other hand, showed a match on both counts even though the evidence for the Resource Investigator trait was not as strong as that for Co-ordinator. What this highlights may be the impact of organisationally relevant factors such as positional and normative power acquired through longevity and a degree of understanding of the organizational culture of the school which experience brings. While SD showed strengths in both areas, SL did not.

As seen from Figure 4.1 (above) the analysis of Team 1's individual team role types shows a preponderance of action-oriented roles such as Shapers, Co-ordinators, Teamworkers and Plants (accounting for more than half of its membership). This belies the inference made from Table 4.3 above, that as an advisory team, Team 1 was not particularly geared towards action.

At the team level, Belbin's SPIs lend themselves to an overall analysis of the types of team role behaviours that are severally prevalent. This aggregates the scores of non dominant traits that are subsumed in the selection of team characteristics when respondents complete the SPIs. The *post hoc* aggregation of these questionnaire scores[27] makes it possible to see the bits of latent team role types which members exhibit, and can portray a role type picture of the team which it is not evident when analysis is done at an individual/dominant role type level alone.

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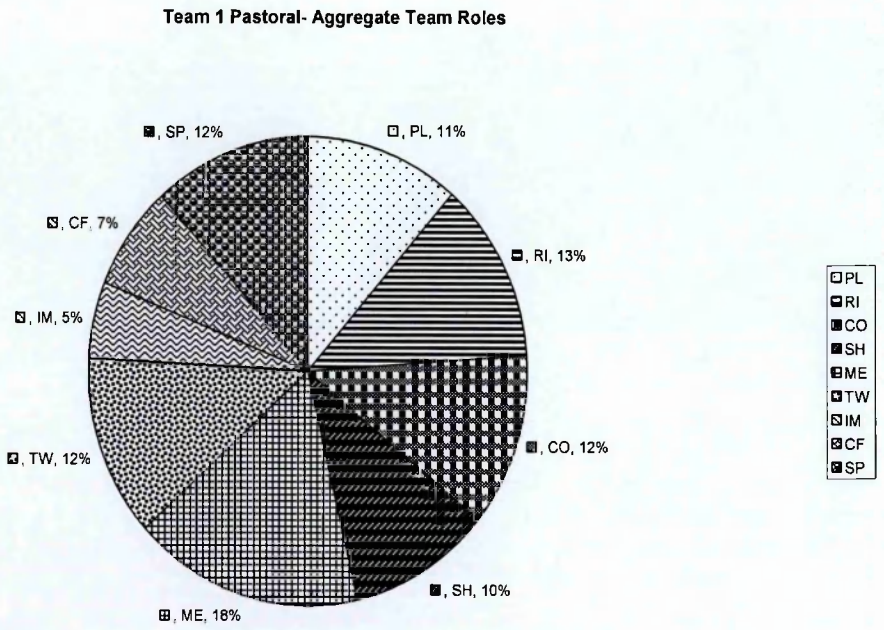
[27] See Appendix B, section 3 for the Analysis Sheet for Belblin's SPI .



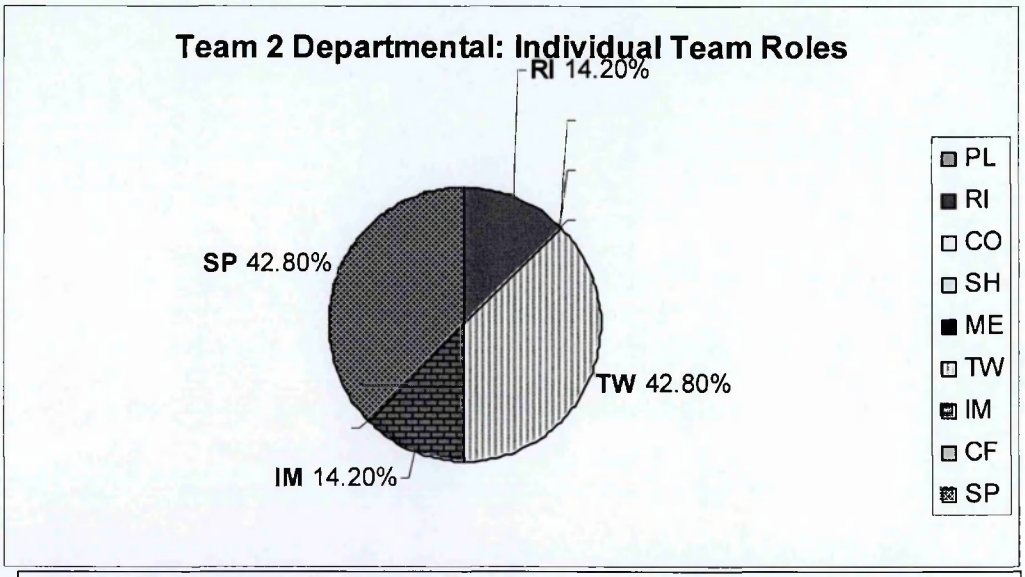
KEY: SH (**Shaper**); ME (**Monitor Evaluator**); TW (**Team Worker**); PL (**Plant**); IM (**Implementer**); CF (**Completer Finisher**); SP (**Specialist**); CO (**Co-ordinator**); RI (**Resource Investigator**)

Figure 4.2: Team 1 Pastoral - Aggregate Team Profile.

As seen in Figure 4.2 (above), when the aggregate team profile was analysed based on the vertical raw scores of role components of the team as a unit, Team 1 showed a dominance of Monitor Evaluator and Resource Investigator role traits. These are essentially evaluative roles which confirm that the individual members' predispositions towards action did not necessarily translate into team-working action. In fact, the low aggregate role scores of the team in the Completer-Finisher and Implementer characteristics indicate Team 1's inclination towards talking, suggesting and criticizing decisions taken by others, at the expense of implementing decisions taken within meetings. This variance between what is manifest in individual team role types and what emerges from a closer scrutiny of the role characteristics at the team level confirms the character of the team as essentially advisory, as was first indicated in its functional analysis (in Table 4.3).

School A: Team 2 Departmental

From composition alone, Team 2 Departmental looked dysfunctional, not possessing all the nine team role types.



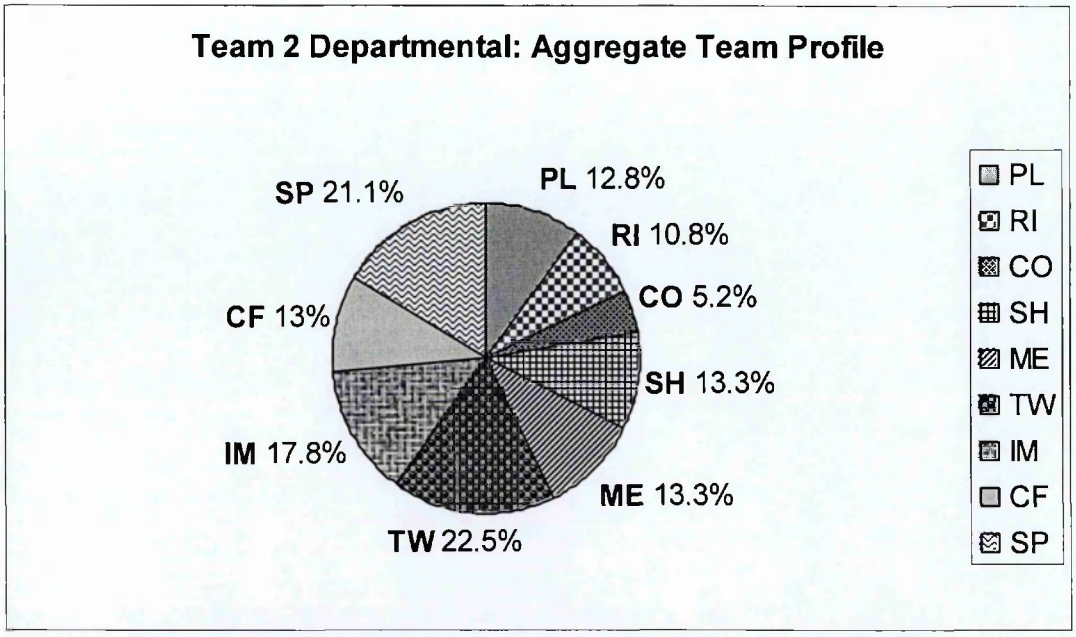
KEY: SH (**Shaper**); ME (**Monitor Evaluator**); TW (**Team Worker**); PL (**Plant**); IM (**Implementer**); CF (**Completer Finisher**); SP (**Specialist**); CO (**Co-ordinator**); RI (**Resource Investigator**)

Figure 4.3: Team 2 Departmental - Individual Team Roles

Just under half of its membership (see Figure 4.3 above) were specialists, a fact which invites the speculation that both the allowable and non allowable weaknesses (viz. that they would purposelessly acquire knowledge for its own sake and ignore factors outside their own immediate area of interest (Belbin, 1993:51)) typical of specialists would hold sway.

With no clear Coordinator or Shaper within the team, it seemed difficult to work out how the action which dominated the functional analysis of the team's joint work came about. Once more, the aggregate of latent team characteristics (see Figure 4.4 below) showed that Team 2 as a unit, was in fact more balanced than it looked *a priori*, with the pre-eminence of Specialists in Figure 4.3, now superseded by the combined influences of Teamworkers and Implementers, noted for their predisposition for

practical action and cooperation.



KEY: SH (**Shaper**); ME (**Monitor Evaluator**); TW (**Team Worker**); PL (**Plant**); IM (**Implementer**); CF (**Completer Finisher**); SP (**Specialist**); CO (**Co-ordinator**); RI (**Resource Investigator**)

Figure 4.4: Team 2 Departmental – Aggregate Team Profile

As a unit, the team therefore displayed a latent 'personality' which was different from that which could have been logically inferred from looking at the role types which individual members had professed themselves to be.

A different kind of 'role shift' could be seen in half of the members who were part of the both teams in School A. Because of the matrix structure of schools, the tendency is for a teacher to be a member of more than one team. For instance if X is employed as a Geography teacher, s/he will be part of the Geography department team. If it is not their first year of teaching, they will also be required to be a form tutor. They are also then, part of a Year team. This organisational feature makes it possible to look for individual role mutation from one team to another. Table 4.5 below shows the four members who belonged to both Team 1 and Team 2. While the self-perceived role (collected from the SPIs) mutated for some, it did not for others.

The two team members (DBE and TB) who showed role mutation happened to be the leaders in the two teams. This may point to the fact that, in this context, their

perception of their team roles was influenced by the position which both members held in their respective teams, and the tasks which these positions required them to perform. It is significant that the roles to which they both mutated in the teams where they were not leaders is the same (viz; Implementer). Implementers are characteristically reliable, disciplined and efficient (Belbin 1996:22).

Team Member	Team Role: Pastoral 1	Team Role: Departmental 2	Role Mutation?
NE	Specialist	Specialist	No
DBE	**Implementer**	**Specialist**	**Yes**
TB	**Shaper**	**Implementer**	**Yes**
TN	Teamworker	Teamworker	No

Table 4.5: School A - Role Mutation

As this role mutation was registered from team members' own perceptions of themselves, it was interesting to see whether the self-perceived discipline and reliability which both leaders professed in their role mutations were borne out by actual interactions. As seen in Table 4.9 (section 4.1.4 below), DBE (Team 2 Leader) mismatched her Implementer role in Team 1. TB (Team 1 Leader) also mismatched her Implementer role in Team 2 (see Table 4.12). What this points to is that the two leaders perceived themselves as playing disciplined, subordinate roles in each other's teams when in fact they did not.

The analysis of interaction below verifies whether or not actual team interactions in School A converged with the rough characteristics of team members' self-perceived role types.

4.1.4 School A: Teams 1 and 2 – Team Interaction

School A: Team 1 Pastoral

With a membership of fourteen, Team 1 was, by the schools' standards, a very large team. The fact that the possible networks needed to generate joint action would have been so complex as to be unwieldy, may account for why its output was predominantly advisory. Illustratively, utterances in the 'Attempted Answers (Bales 1950:258)' area (bearing in mind that information, suggestion and opinion giving are

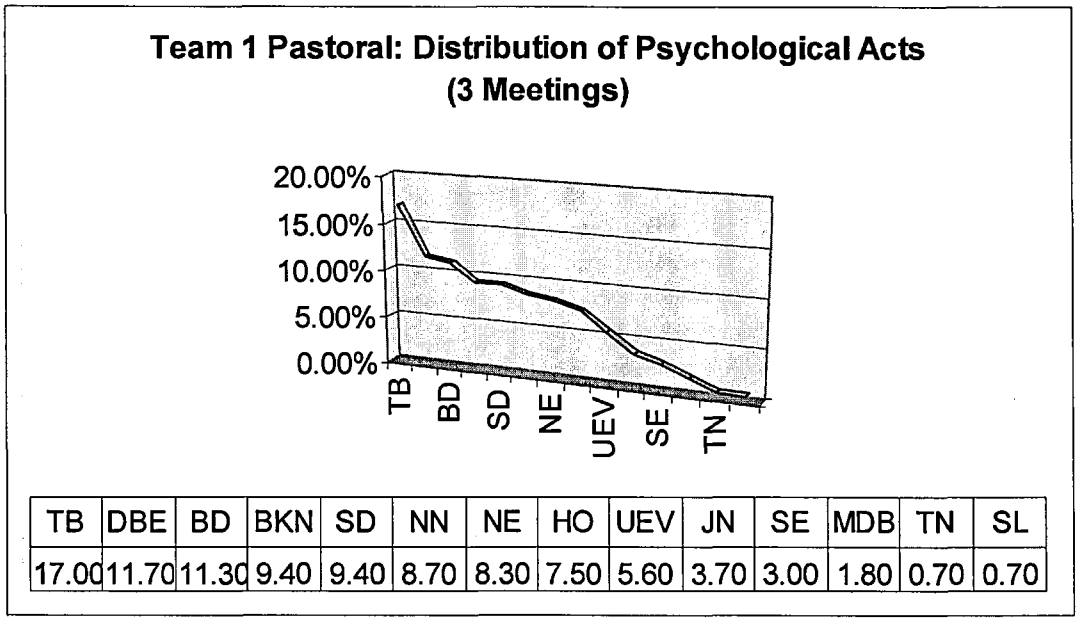
the key to advisory team type mandate), account for 39.9% of overall interaction. In all three Team 1 meetings, a total of 264 interactions were recorded of which (see Table 4.6 below) 59.8% were task-dominated – an arguably low figure which can be attributed to the team's size, with attendant issues relating to control (see Frames of Reference in Appendix A).

	Verbal Act Category	Meeting 1	Meeting 2	Meeting 3	Total per Category	Frames of Reference
1	Shows Solidarity (+)[28]	1	5	23	**29**	**f**
2	Shows Tension Release (+)	3	7	11	**21**	**e**
3	Shows Agreement (+)	4	5	17	**26**	**d**
4	Gives Suggestion *	6	6	14	**26**	**c**
5	Gives Opinion *	6	11	11	**28**	**b**
6	Gives Information *	1	19	30	**50**	**a**
7	Asks for Information (?)	6	11	15	**32**	**a**
8	Asks for Opinion (?)	0	5	6	**11**	**b**
9	Asks for Suggestion (?)	3	4	4	**11**	**c**
10	Shows Disagreement (-)	3	11	5	**19**	**d**
11	Shows Tension (-)	1	5	0	**6**	**e**
12	Shows Antagonism (-)	1	2	2	**5**	**f**
	Total Acts per Meeting	**35**	**91**	**138**	264	

Table 4.6: Team 1 Pastoral: Overall Interactions by Psychological act- Meetings 1, 2 and 3.

In all three Team 1 meetings the team leader (TB) had the highest number of psychological acts (i.e. instances of behaviour visible to an observer), with the next most involved participants having fifteen less turns each over three meetings. This seemed disproportionately high especially as four out of fourteen members had ten or less turns each. Figure 4.5 below, shows how total turn taking revealed a pattern in which members with positional authority within the team or elsewhere in the school, or members with more longevity, tended to have more turns than others. This was almost ordinal in nature and may suggest that the team was highly political. This will become more apparent when team interactions are analysed using Bales' (1950:258) six frames of reference (in section 4.4).

[28] The plus sign (+) denotes socio-emotional positive reactions. The asterisk (*) denotes task related attempted answers. The question mark (?) denotes task related questions and the minus sign (-) denotes socio emotional negative acts.



TB	DBE	BD	BKN	SD	NN	NE	HO	UEV	JN	SE	MDB	TN	SL
17.00	11.70	11.30	9.40	9.40	8.70	8.30	7.50	5.60	3.70	3.00	1.80	0.70	0.70

Figure 4.5: Team 1 Pastoral: Distribution of Psychological Acts[29].

In terms of total interactions per meeting, Meeting 2 had the highest number of socio negative acts (see Table 4.6). The meeting agenda showed that the Pupil Referral System was being discussed and this elicited more bad feeling from team members than was seen in the other two meetings, where the items under discussion were more routine. The fact that all pastoral teams had been mandated by Senior Management to discuss this new system, when it seemed that all the structures and resources needed to make it work were not yet in place, may account for the amount of bad feeling in Meeting 2 as can be gleaned from this excerpt:

Verbal	Non Verbal
NE: ...so who does the green form go to then ...?	*Hesitates... shuffles through the pile in front of him, pulls out the sheet and looks at it intently.*
NN: ... there isn't any gree ... oh. You would think they'd colour code it ...	*Leaves off. Falters. Looks at the paper quizzically.*
DBE: ...to make it easier to understand? Ha!	*Completes sentence. Mocking. Nods. Makes a face.*
NN: dunno ...what the hurry's about ...all these half baked... by the way, what was wrong with last year's system. ...was simple and it worked...all you had to do was write the name of the person you wanted it to go to. What was wrong with that?	*Looks to the left. JN makes a comment off camera and smiles. NN continue.*
TB: ...this is an evidence based system. They want to stop pupils shooting straight to the top. You need to show what you have done	*Wryly.*

[29] In order to increase the scale of the diagram, the chart in Figure 4.5 shows alternate members only. The table shows the percentage value of utterances by all Team 1 members.

before you pass it up one level...hum?	*Looks around*
DBE: ...keep shoving it back down you mean...if it ain't broke...some children... take [name of pupil]... he needs to be dealt with by at least someone who has enough time to cope with all those meetings...	*Carries on. Changes tack. Gets more heated. Tone of voice gets tetchy.*
NN: ...and frees [*free periods*].	*Smiles. Interrupts and completes. Conversation continues in that vein for about 2 more minutes.*

Extract Team 1: Meeting 2

As far as the quality of interactions is concerned, established literature on talk as a social phenomenon (Bennett, 1981; Coates, 1994) describes the socially accepted norm in conversational speaking as being the 'No gap, no overlap' model. This turn taking-pattern, also known as the SSJ model from the initials of the research authors (Sachs *et al.,* 1974), sets the conversational standard as being one in which the people talking succeed each other smoothly and do not interrupt when others 'have the floor'. When compared to the turn-taking patterns in Team 1, it became evident that the quality of communication in Team 1 meetings was clearly marked i.e. it deviated from the norm. The analysis of turn taking patterns showed Team 1 meetings as having the highest number of uncompleted turns of all the four teams (with a total of 26 unfinished utterances in Meeting 2 alone) in this study. In Team 1 Meeting 2 for instance, almost all of the interruptions were in the psychological act[30] positive and attempted answers domains, taking the form of suggestions and opinions. Typically, the Team 1 members who made utterances judged as antagonistic or showing tension (psychological acts - negative) tended to formally ask for a turn and therefore did not interrupt *per se*. Brown and Levinson (1978) describe this type of behaviour as negative politeness.

Contrary to expectation, interruptions of other's utterances did not always follow a status pattern (as was seen with turn-taking frequency), where it is assumed that those with more power would interrupt the 'less powerful'. In fact, because the number of utterances made by the team leader was so much higher than those made by others, the team leader was the most likely to be interrupted, mostly but not only by a team member with 'status' of some kind. As seen in Table 4.7 below, those with the highest consistent patterns of interruptions were members who had posts of responsibility

[30] Bales (1950) describes a psychological act as an instance of behaviour visible to an observer.

elsewhere in the school. What was peculiar about this behaviour was the fact that neither the 'interrupter' nor the 'interruptee' in the meeting displayed the type of non verbal behaviour which showed an awareness that offence was being given or taken. This 'overlap' pattern of conversation is an example of positive politeness (Coates, 1994) visible typically in interactions between people who are well acquainted, such as friends or family. Whether this was due to the fact that nine out of the thirteen members of the team were female, researched to exhibit patterns of talk in which there are no gaps, several overlaps and yet no manifest feelings of having been interrupted (Coates, 1994), was not established in this study. The fact that the content of what was said during these overlaps (i.e. interruptions where the 'interruptee' does not consider themselves to have been interrupted) tended to be opinions and questions not considered to be personally directed at the interruptee, could account for the absence of offence taken at interruptions. What was peculiar in the quality of Team 1's interactions was that all the male members of the team did 'overlap' in this reputedly 'female' pattern of marked turn-taking at least once during Meeting 2. Table 4.7 below summarises the total number and source of interruptions and overlaps recorded from all three Team 1 meetings.

	Meeting 1	**Meeting 2**	**Meeting 3**
By ordinary members	7	9	1
By members with posts of responsibility elsewhere	9	11	8
By the team leader	4	6	2
Total per Meeting	**20**	**26**	**11**

Table 4.7: Team 1 Meetings -The Pattern of Interruption

In terms of convergence between self-perceived roles and role enactment (shown in Table 4.8 below), the total number of turns taken by team members followed a status pattern of seniority, with the more senior members of the team (the team leader and the three other middle managers) tending to speak for much longer and more often than those with decreasing positional authority, irrespective of their team role types. For instance, the Shaper team leader's total psychological acts were predictably the highest in the team at 45, of which, surprisingly, only 26 were task-related[31]. Taking into account the drive and sharpness of focus which are said to be characteristic of Shapers, the quantity of team interactions (41.2%) spent on socio-emotional acts is

[31] See Appendix C, Team 1 Pastoral, Table 4: Overall Interactions by Members – Meetings 1, 2 and 3.

uncharacteristically high. When combined with the Shaper's allowable weakness - a tendency to provoke and hurt others feelings - the rather low (11%) percentage of socio-negative interactions over 3 meetings somewhat challenge the SPI role type of the team leader as a Shaper. Also noteworthy is the amount of turns which NN, a main scale teacher managed to appropriate. The fact that this could happen in spite of her relatively low positional authority could be ascribed to her longevity in the school. What this points to is the fact that while seniority might influence turn-taking frequency, team role type does not. Table 4.7 below summarises how seniority and longevity affected the total amounts of turns taken, irrespective of team role type in all the three Team 1 meetings.

Team 1 Member	**Seniority (Posts of Responsibility)**	**Longevity (Years in School)**	**SPI Role Type**	**Total Utterances over 3 meetings**
TB	Senior Manager	6	Shaper	45
DBE	Head of Department	22	Implementer	31
BD	Assistant Year Head/Numeracy coordinator	8	Team worker	30
BKN	Assistant Year Head/Head of Art	2	Plant	25
SD	Head of ICT	1	Coordinator/Resource Investigator	25
NN	Main Scale Teacher	18	Completer Finisher	23
NE	Second in Charge. Department	4	Specialist	22
HO	Head of Department	12	Monitor Evaluator	20
UEV	Main Scale Teacher	2	Resources	15
JN	Main Scale Teacher	2	Plant	10
SE	Newly Qualified Teacher	1	Shaper	8
TN	Newly Qualified Teacher	1	Team Worker	2
SL	Trainee Teacher	<1	Coordinator/Monitor Evaluator	2

Table 4.8: Patterns of Seniority and Turn-taking in Team 1

Similarly significant in Team 1 is the fact that eight out of thirteen - over half of the team - were observed displaying behaviour which did not quite fit what was expected for their professed role types. Table 4.9 (below) summarises the degree of divergence

between the main characteristics and/or weaknesses of the Belbin team role[32] types

Team Member	SPI Team Type	Was observed (in more than one meeting) ...	Match/Mismatch?
NE	**Specialist** (single minded, self starting, dedicated)[33]	Giving technical information. Voicing an opinion. With drawing participation in matters outside his direct area of experience.	**Match**
DBE	**Implementer** (Turns ideas into practical action)	Pushing new ideas. Organising others' work. Responding positively to suggestions.	**Mismatch**
HO	**Monitor Evaluator** (Sees all options)	Never to be overtly critical. Never expressing judgement. Enthusiastic.	**Mismatch**
BKN	**Plant** (Solves difficult problems)	Approaching problems creatively. Glossing over details. Refusing to agree to a compromise.	**Match**
SD	**Coordinator/Resource Investigator** (Promotes decision making)	Giving orientation. Clarifying goals. Was communicative and very involved. Cutting deals	**Match /Match**
BD	**Team worker** (Averts friction)	Never being socio-emotionally negative. Tending to agree with opposing suggestions.	**Match**
JN	**Plant**	Never suggesting anything new or creative. Tending to go along with what others had suggested. Thriving in cooperation	**Mismatch**
NN	**Completer** (Searches out errors)	Searching out errors. Showing evidence of work done. Rejecting new ideas.	**Match**
SE	**Shaper** (Challenges. Overcome obstacles)	Never being socio emotionally negative. Going along with suggestions.	**Mismatch**
UEV	**Resource Investigator** (Explores opportunities)	Not engaging with the team. Asking for rather than providing information. Never being critical.	**Mismatch**
TB	**Shaper**	Setting goals clear. Providing orientation. Joking, laughing.	**Mismatch**
TN	**Team Worker**	Not engaging in proceedings. Making not more than one utterance a meeting.	**Mismatch**
SL	**Co-ordinator / Monitor Evaluator.**	Not engaging in proceedings. Making not more than one utterance a meeting.	**Mismatch/Mismatch**

Table 4.9: Team 1 - Comparing Team Role Types with Observed Behaviour

[32] See Appendix B for the detailed archetypal attributes of the nine team roles types.
[33] Characteristics culled from Belbin (1993).

and observed behaviour over three team meetings. Although those who mismatched tended to have at least one instance of behaviour that was congruent to their Belbin SPI role type, the team members who matched tended to be almost caricatured in their fit to Belbin's SPI.

School A: Team 2 Departmental

Because Team 2 was smaller in size than Team 1, its quality of communication in terms of gaps, interruptions and overlaps was patently dissimilar. Interaction between team members seemed to be more sustained in terms of duration of utterances, the existence of gaps between utterances and the rarity of overlaps (i.e. two people speaking over each other and succeeding in making sense together). This pattern of turn-taking is consistent with the no gaps no overlap model first researched by Sachs et al. (1974). Utterances tended to be more discrete, politeness seemed more negative in the sense that team members tended to request for a turn which could or could not be attributed to them by the team leader. There was an average of seven interruptions over three meetings where the same figure for Team 1 was nineteen.

	Meeting 1	**Meeting 2**	**Meeting 3**
By ordinary members	0	0	7
By members with roles of responsibility elsewhere	2	1	6
By the team leader	3	0	3
Total per meeting	**5**	**1**	**16**

Table 4.10: Team 2 Meetings – The Pattern of Interruptions

As shown in the excerpt from Meeting 3 below, there was evidence of 'whipping' by the leader (DBE), who could be seen signalling for members to hold their tongue while others finished their utterances, or consciously not allocating a turn to members who were dying to say something. The item being discussed was the call out system for dealing with disruptive pupils. A report had been published showing that the department did exclude a disproportionately high number of pupils from lessons, suggesting that the department could learn from others who had collectively supported each other in keeping pupils in lessons. This had irked the team leader because the department did have a support rota. The fact was that it was not working.

The pressure was therefore to make it work. NE, whose lessons had the highest number of 'removes' was exercised by the seeming unfairness of the report.

Verbal	Non Verbal
NE: [...] but the thing doesn't say whether a teacher was in school or not ... you know that I was away for two weeks of the half term ...	*Looking down, his voice goes up as he speaks.*
KL: ...maybe..	*Interrupts, smiles looking at team leader.*
DBE: ... hang on [KL's name]...	*Frowns briefly, keeps her gaze on GEF. GEF's gaze is non committal.*
KL: I was just thinking that may...	*KL jumps in again. She wants to finish her sentence. She is looking down, not smiling.*
DBE:	*Does not speak. Raises her hand, as to say 'stop'. The other hand is rubbing her forehead. Looks at NE.*
NE: [name, KL] and I were saying yesterday that it's because the cover teachers don't know that you need to first send someone in here [meaning the department] before you call CSR [the duty teacher]...	*Looking at KL, a serious look, said forcefully. NE is upset. DBE wants to stop him and is nodding fast, but not in agreement, DBE's lips pursed.*
KL: ...that's it... when giving the cover work, why don't you for example let them send the little ... we know who they are so we can name them....to another room...	*KL tries to complete her stream of thought. She speaks very fast as if expecting to be stopped. The second pause is an expletive.*
DBE: ...tut tut... the truth is, we really need to make it work, what are the pairs again? May be a first and a second port of call for if someone is absent [...]	*Cuts her off with a tense smile. Others in the team smile in support/amusement. The conversation continues.*

Extract: Team 2 Meeting 3

The fact was that most members of Team 2 tended to comply with the team leader's way of attributing turns and tended to wait for turns to be attributed them. There were less instances of interruptions in Team 2 meetings by members (such as TB, TN and NE) who belonged to both Teams 1 and 2, than there were in Team 1 meetings by the same members.

Table 4.10 shows the total number of interactions per Team 2 meeting to be lower than could be accounted for by number of members alone. As discussed above, this may have been due to the team leader's turn allocation style. Another factor could be that the format of the meetings, two of which had a training component (of which one was via video) limited the possible number of interactions recorded. This was because members' full attention was turned to the video when it was on.

As shown in Table 4.11 below, Team 2 interactions were disproportionately dominated by the Team leader (DBE), who accounted for over a quarter of total psychological acts over three meetings (25.4%). As with Team 1, team members who had positional authority in other areas (namely, GEF, NE and TB) tended to take higher than average turns, but unlike in Team 1, the gap in total number of utterances between ordinary members and members with responsibilities elsewhere did not taper off patently, following positional authority/status pattern but seemed to flatten out around the 16% mark (see Figure 4.6 below).

Team 1 Member	**Seniority (Posts of Responsibility)**	**Longevity (Years in School)**	**SPI Role Type**	**Total Utterances over 3 meetings**
TB	Senior Manager	6	Specialist	31
DBE	Head of Department	22	Specialist	41
GEF	Rank of Head of Department	15	Implementer	17
NE	Second in Charge of Department	3	Specialist	21
KL	Subject coordinator	5	Teamworker	15
TN	Newly Qualified Teacher	>1	Teamworker	15
GE	Teacher in Training	<1	Resource Investigator	Left before recordings started
NNP	Trainee Teacher	<1	[*Did not complete SPI*]	11
BX	Trainee	2 Months	[*Did not complete SPI and joined only shortly before Meeting 3*]	8

Table 4.11: Patterns of Seniority and Turn-taking in Team 2 Meetings

For instance, if BX, the newest arrival in the department were to have averaged the same number of utterances as she did in Meeting 3, she would have had more turns than GEF who had the same administrative rank as the team leader. This is perhaps indicative of the fact that admission to membership within the team was conditional upon the possession of certain specialist qualifications (i.e. the subjects taught in this department), and therefore, the potential for equal contribution towards teamworking was higher in Team 2 than in Team 1, where members' curriculum specialties were irrelevant. It is also possible to speculate that this was a result of the preponderance of Specialist and Teamworker types (see Table 4.11 above), who typically respect knowledge whatever its source, and do not wish to upset.

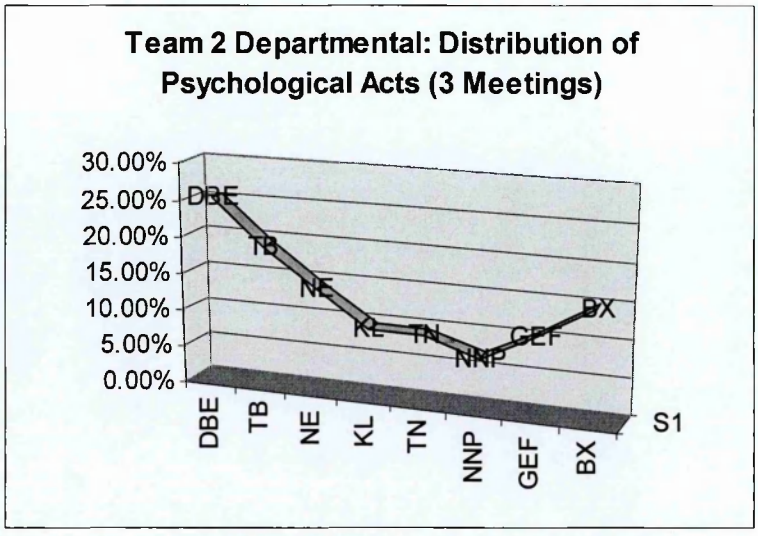


Figure 4.6: Team 2 – Distribution of Psychological Acts.

In terms of the nature of interactions in Team 2, again the frequency of psychological acts was highest in task-relevant attempted answers and questions domains, with 61% of interactions focussed on task related issues, the remaining 39% being focussed on socio-emotional acts. When compared to similar data in Team 1, it was tempting to deduce that Team 2 meetings were less socio-emotionally charged. However when the proportion of socio emotional acts to overall interactions were calculated, it emerged (with 40% in Team 1 and 39% in Team 2) that emotionally charged interactions were almost similar in both teams. The significant difference in Team 2 was the fact that socio-emotionally negative acts (which are more noticeable to an observer) were proportionally more frequent in Team 2 than in Team 1. When the data was looked at using Bales' (1950) interactional frames of reference, the apparent dearth of tension in Team 2 interactions pointed to the possibility that tension and integration may have been being better managed in Team 2 than in Team 1. As is discussed in section 4.3, this was not exactly the case.

Attempting to verify whether Team 2 members' behaviours reflected their Belbin SPIs was complicated by the incidence of staff change (see NNP, GE and BX in Table 4.11) in the intervening period between the completion of the SPI questionnaire and the completion of recordings. While this would not have been significant in a larger

team, such as Team 1, it did reduce the size of the sample in a way which could falsely amplify the effects of other members' behaviours on team interaction. With this caveat in mind, the fact that half of Team 2 registered a mismatch (see Table 4.12 below) between their self-perceived team role types and their actual observed behaviour is significant. It meant either that Team 2 members were less likely to understand their role within the team than Team 1 members, or that their actions within meetings were more inclined to be natural; the SPI team roles types which they professed themselves to be, being mere metaphors of their team aspirations which the context of teamworking within this particular team unit was not enabling them to realise. Or could it be that the SPIs said who they really were but the meetings were run in a way which brought out an atypical response?

Team Member	SPI Team Type	Was observed (in more than one meeting) ...	Match/Mismatch?
NE	Specialist	Not giving any information at all. Showing antagonism. Voicing opinions.	**Mismatch**
DBE	Specialist	Providing technical information. Initiating change. Ignoring issues outside own area of interest.	**Match**
TB	Implementer	Showing emotional involvement. Not providing any technical information. Hurting others' feelings.	**Mismatch**
KL	Teamworker	Showing solidarity with others. Never showing antagonism. Being indecisive.	**Match**
TN	Teamworker	Being involved only when directly interested. Not actively cooperating. Being easily won over.	**Match+/-**
GE	Resource Investigator[34]	nil	**nil**
GEF	Implementer	Provided orientation. Directed others. Provided technical information.	**Mismatch**
BX	nil[35]	nil	**nil**

Table 4.12: Team 2 Departmental-Comparing Team Role Types with Observed Behaviours

This latter premise may for instance, begin to account for why Team 2 members seemed socio-emotionally less involved in meeting interactions than Team 1

[34] Had left the school when recording began.
[35] BX did not return his Belbin SPI

members, yet were more likely to be antagonistic (see Table 4.13 below which summarises that nature of Team 2 members' interactions over 3 meetings).

Psychological Act	Meeting 1	Meeting 2	Meeting 3	Total per Category	Frames of Reference
Shows Solidarity (+)	2	2	6	**10**	**f**
Shows Tension Release (+)	0	3	6	**9**	**e**
Shows Agreement (+)	1	4	11	**16**	**d**
Gives Suggestion *	3	4	12	**19**	**c**
Gives Opinion *	2	3	11	**16**	**b**
Gives Information *	4	18	12	**34**	**a**
Asks for Information (?)	2	6	5	**13**	**a**
Asks for Opinion (?)	0	0	7	**7**	**b**
Asks for Suggestion (?)	2	1	4	**7**	**c**
Shows Disagreement (-)	1	4	9	**14**	**d**
Shows Tension (-)	3	0	4	**7**	**e**
Shows Antagonism (-)	1	3	3	**7**	**f**
Total Acts per Meeting	**21**	**48**	**90**	**159**	

Table 4.13: Team 2 Departmental - Overall Interactions by Psychological Act- Meetings 1, 2 and 3

Although socio emotional behaviour in general, as a proportion of overall interactions was 40% in Team 1 and 39% in Team 2, the proportion of socio emotionally negative behaviour was 17.6% in Team 2 compared to only 11.3% in Team 1. Instances of overt antagonism in Team 1 accounted for 1.8% of overall utterances. In Team 2, this figure was 4.4%; meaning that Team 2 members were 2.4 times more likely to be antagonistic than Team 1 members.

A complicating factor in Team 2 was the fact, as in TN's case, that the scarcity of interactional data due, maybe to insufficient involvement in meetings, made it difficult to compare some members' behaviour with the characteristics of their espoused team role type. Unlike in Team 1, none of Team 2 matches were clear archetypal team role fits, as members tended to exhibit qualities and weaknesses which spanned more than one team role type.

4.2. Case 2: School B

Contextual information on School B can be found in section 1.1.2.

4.2.1 School B: Teams 3 and 4 - Genesis and Evolution.

Teams 3 Curriculum and Team 4 Faculty came about as a direct result of the middle management restructuring which happened post inspection (1998-99), when the current Head took control of the school. Although Table 4.14 shows that a small minority of the research participants were in the school prior to restructuring, none of School B's 18 research subjects were in post at the time of the restructuring, although it is evident that some were already in service at the time. Since restructuring, they had all taken up posts tailored to the objectives which the new structure was to help achieve. Team 3 was truly cross curricular, with all the areas of the national curriculum represented by a junior manager. Team 4 was a subject specific faculty with two areas of parallel but differing specialties. Because this was Team 3's second year of existence and Team 4's fourth in the Faculty format, it is fair to say that both teams were relatively young.

Team 3 (School B: Curriculum)		**Team 3 (School B: Curriculum)**	
Length of Service to the School (in Years)	**Team Members**	**Length of Service to the School (in Years)**	**Team Members**
0-1 Year	BH/CC	0-1 Year	BH/CD
≥1 - 2	DS/GT/JB	≥1 - 2	EG/SN/TZ
≥2 - 5	NF/QO/GO/BE	≥2 - 5	DJ/TW/BE
≥5 - 10	-		
≥10 - 20	NB		
≥20	CE		

Table 4.14: A Composition/Longevity Analysis of Teams 3 and 4 in School B

In terms of evolution, Team 3's mandate in its first year was to staff itself and then develop staff to deliver the Key Stage 3 Strategy, under the aegis of a Deputy Head as team leader (DS). It was therefore in the 'forming' stage (Tuckman, 1965:289) of its evolution. At the beginning of its second year, it had lost 4 members to promotion and retirement and had recruited three to take their place. This meant that it was still 'forming' at a time when it was being expected to have 'normed' and begun

performing. Experience within Team 4 revealed a team which had already 'formed' and 'normed' some time before the arrival of the researcher and was in the process of 'performing' and 'storming'. This could have been because as a faculty, the basic *modus operandi* were traditionally established, the staffing set from the start and the priorities for action so immediate that the next logical step was to norm and perform. In addition, Team 4 met every fortnight and in the second year of the research, three times a month. This provided ample opportunity for Team 4 to develop more rapidly than Team 3, which only met once every 6 weeks on average.

4.2.2 School B: Teams 3 and 4 Team Tasks and Function

To get a functional snapshot of the two teams, their main priorities were lifted off the School Improvement Plan and crosschecked against the tasks and outputs observed in the three meetings.

Team 3 had one rather large mandate which was to implement the Key Stage 3 Strategy. This was divided into 2 strands; the Core Subjects (English, Mathematics, Science and Information and Communication Technology) and The Foundation Subjects (Humanities, Modern Foreign Languages, the Expressive Arts, Physical Education and PSHE/Citizenship), each represented by a manager. The strand manager for the Core Subjects, DS, was also the team leader. BH, who was strand manager for the Foundation Subjects, was second in charge.

	Team 3: Pastoral Goals as Stated in School Improvement Plan	**Team Tasks**	**Frequency of Occurrence (out of 3 meetings) and Output**	
1.	To Implement the Key Stage 3 Strategy	-understanding the KS3 Strategy Framework.	1	Action. Plans. Training Presentations Recommendations.
		-completing the intervention audit. Conducting and moderating pupil book scrutiny	1	Training. Action. Recommendations
		-the three part lesson, teaching starters.	1	Training/Presentations Discussions.

Table 4.15: Team 3 Curriculum - Nature of Joint Work over 3 Meetings

At the time of the recordings, Team 3's agenda was generally fixed in advance for the year and as can be seen from Table 4.15 above, the team had a strong professional development focus, some of which included joint work as an illustration of what managers were expected to replicate and continue within their own curriculum areas.

All three Team 3 meetings observed lasted an hour with joint work and training using up the largest chunks of time. This affected the amount of time dedicated to verbal interactions. The degree of differentiation in the nature of work which managers were expected to perform as a result of their work in Team 3 was very low as the strategy objectives for all the subjects were more or less the same. However the degree of technical specialisation between Key Stage 3 managers was very high. This made the focus of Team 3 meetings strategic in the sense that it provided the blue print, one level removed from practice, which managers were to apply in their own areas. These characteristics made Team 3 a project team, where managers had high levels of autonomy in the actual performance of their tasks. Joint work in Team 3 therefore took the form of acquiring knowledge together, sharing practice and experiences and jointly producing reports required of them as KS3 managers, as was the case with the Pupil Intervention Audits in Meeting 2.

Team 4 operated as a traditional department but was different from Team 2 in School A in its structure. Apart from the Head of Faculty/team leader (DJ), there was a Head for each of the Key Stages (CD and EG). While subject specialty was important in the organisation of Team 2 School A, in Team 4 it was not. Examined on the basis of levels of differentiation, coordination and specialization, the nature of joint work seen over three meetings, showed Team 4 demonstrating all the characteristics of an advisory team. When compared to the functional analysis of Team 2 (its equivalent in School A), joint work within Team 4, albeit additive in the sense that all members had to do their bit for work to be successful, seemed more integrated. Team 4 meetings seemed to be used for decision-making more often than Team 2 meetings. This gave the impression that each member's presence and participation influenced the shape and import of decisions taken. This was not the picture in Team 2.

	Team 4: Faculty Goals as Stated in School Improvement Plan	Team Tasks	Frequency of Occurrence (out of 3 meetings) and Output	
1.	Improve the quality of Teaching and Learning.	-Arranging rotas for behaviour support.	1	Discussions. Decisions.
		-moderating marking and levelling.	2	Action. Recommendations
		-agreeing course work criteria.	1	Action. Training. Decisions
		-reviewing schemes of work.	2	Planning. Discussions. Decisions.
2.	Raise the attainment of at KS3.	-learning teaching strategies.	2	Training. Planning. Recommendations
		-Arranging lesson observation dates	1	Decisions
		-scrutinising pupils' work.	1	Action Recommendations
		-reporting on pupils causing concern.	2	Decisions Action
		-organising training	1	Decisions

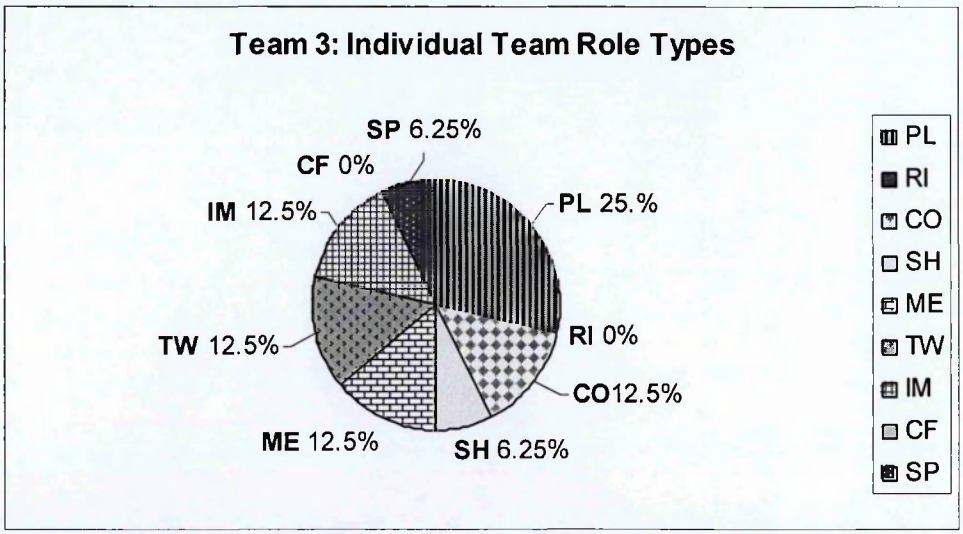
Table 4.16: Team 4 Faculty - Nature of Joint Work over 3 Meetings.

4.2.3 School B: Teams 3 and 4 Team Roles

School B: Team 3 Curriculum

It is this researcher's view that any discussion of data from Team 3 would benefit from a 'health warning'; a sort of explanation of the circumstances which surrounded data collection. Normally the team should have 13 members representing the 11 curriculum areas plus the two members of the senior management team who coordinate its work. The first complication arose when three members of the team declined to fill in the questionnaire – it was their right to opt out. They did not however object to being filmed for interactional analysis purposes. Of the remaining 10 members, one had just accepted a post elsewhere in the school and did not wish to continue involvement with Team 3. The last one rarely showed up for meetings and does not figure in any of the interactional data collected. As her impact on proceedings was nil, she was left out of the research. In the light of the above, role types are being discussed as if the 8 remaining members constitute the whole team. The fact that GT and NB were absent from Meeting 3 did not appear to have any

visible effect on team interaction. Team procedure was such that members received notes of any meetings they had missed. They were therefore assumed to be abreast of what had transpired in their absence. It would have been interesting to see on their return at the next meeting how the team reacted to their not being present at the previous meeting but data collection stopped after Meeting 3 and the researcher was unable to ascertain team reaction to their absence.



KEY: SH (**Shaper**); ME (**Monitor Evaluator**); TW (**Team Worker**); PL (**Plant**); IM (**Implementer**); CF (**Completer Finisher**); SP (**Specialist**); CO (**Co-ordinator**); RI (**Resource Investigator**)

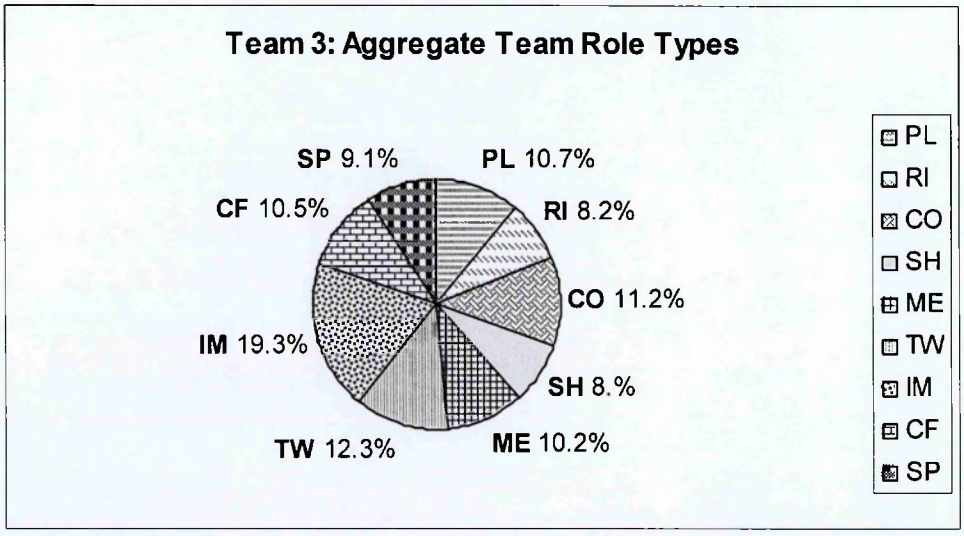
Figure 4.7: Team 3 – Individual Team Role Types

Analysed in relation to individual members' self-perception (see Figure 4.7 above), Team 3 was not balanced in the sense that it did not possess all nine of Belbin's role types. With eight members in the team this should be obvious, *modus ponens*[36]. However, in spite of one member registering two dominant team types, the team still lacked a Completer Finisher within it. Characterized by their creative unorthodox approach to problem solving, Plants registered the highest prevailing role type (25%). Only one member (BH), in the team registered two equally dominant role types (Shaper/Specialist) which matched action when compared to actual interactional behaviour in meetings. The team leader (DS) showed up as a Coordinator. This is potentially significant because if interactional data shows a match (as it actually did) in the team leader's espoused theories and theories in action (Eraut, 1997:45), then

[36] If the antecedent is affirmed then the consequent is affirmed.

Team 3, more than any of the other teams in this study, would have been being led by the type of personality claimed by Belbin (1993:64) to be best suited to lead teams.

Bearing in mind that information from individual team role types can be supplemented by computing the aggregate scoring which individuals give to the specific scenarios within the questionnaire, one can argue that aggregate team role profiles provide a truer latent picture of the team as a unit than could be seen from the sum of individual role types alone.



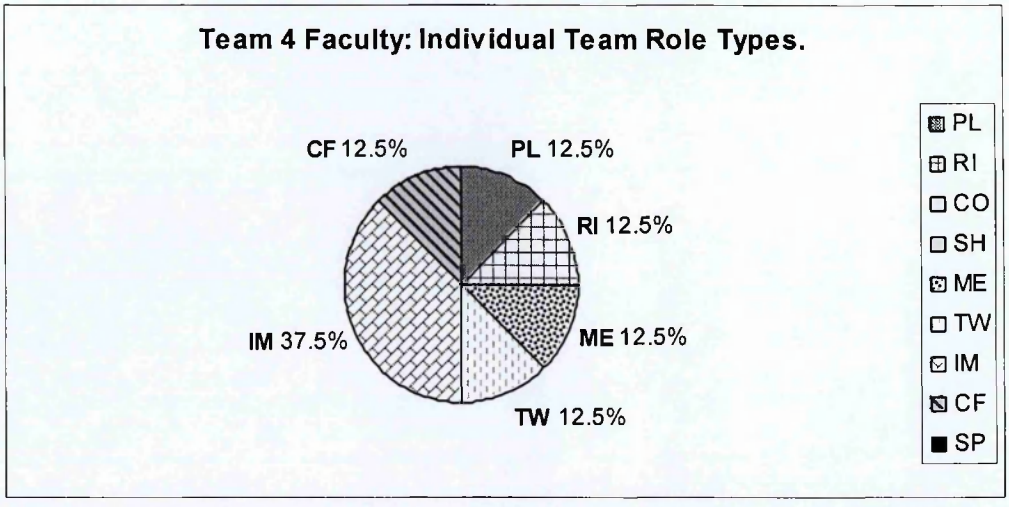
KEY: SH (**Shaper**); ME (**Monitor Evaluator**); TW (**Team Worker**); PL (**Plant**); IM (**Implementer**); CF (**Completer Finisher**); SP (**Specialist**); CO (**Co-ordinator**); RI (**Resource Investigator**)

Figure 4.8: Team 3 – Aggregate Team Role Types.

The aggregate calculation of questionnaire responses showed (see Figure 4.8 above) that Team 3 did possess all the nine team type requirements to operate smoothly, contained severally between its eight members. Although this calculation revealed the percentage of Implementer (19.3%) role type trait as being slightly higher, the low differentials between the rest of the role types showed a rough overall balance of role types traits, first seen in Team 3's individual role type analysis (see Figure 4.7 above). This characteristic is also noticeable in Team 1. What this means is that based on composition alone, Team 3, like Team 1 was more likely to teamwork efficiently than Team 2 and Team 4.

School B: Team 4 Faculty

Team 4's membership was eight but it lacked three of the nine role types within it. At 37.5 %, it was dominated by members who saw themselves as Implementers – people who were good at turning ideas into practical actions (see Figure 4.9 below). Team 4 was meant to be a Faculty team where specialist knowledge was prized, yet there were no members in the team who were predominantly Specialist in type. What stood out was the fact that this team lacked Coordinators and Shapers reputed respectively for their organizing and strategy-making qualities. This turned out to be a significant lack in Team 4's interactions.



KEY: SH (**Shaper**); ME (**Monitor Evaluator**); TW (**Team Worker**); PL (**Plant**); IM (**Implementer**); CF (**Completer Finisher**); SP (**Specialist**); CO (**Co-ordinator**); RI (**Resource Investigator**)

Figure 4.9: Team 4: Individual Team Role Types

It also begged the question of how this team formulated and co-ordinated its strategy and action. The Team Leader (DJ) was an Implementer, meaning that although she could be disciplined, reliable and efficient, inflexibility and a lack of responsiveness to change were possible weaknesses. These were characteristics which the team leader demonstrated in action. The fact that one of the two other post holders in this faculty (EG) shared this role type meant that creating new strategies and changing direction could be very difficult for Team 4. The second post holder (BE) demonstrated the classic Monitor Evaluator weakness (lack of drive and cynicism). The issue of

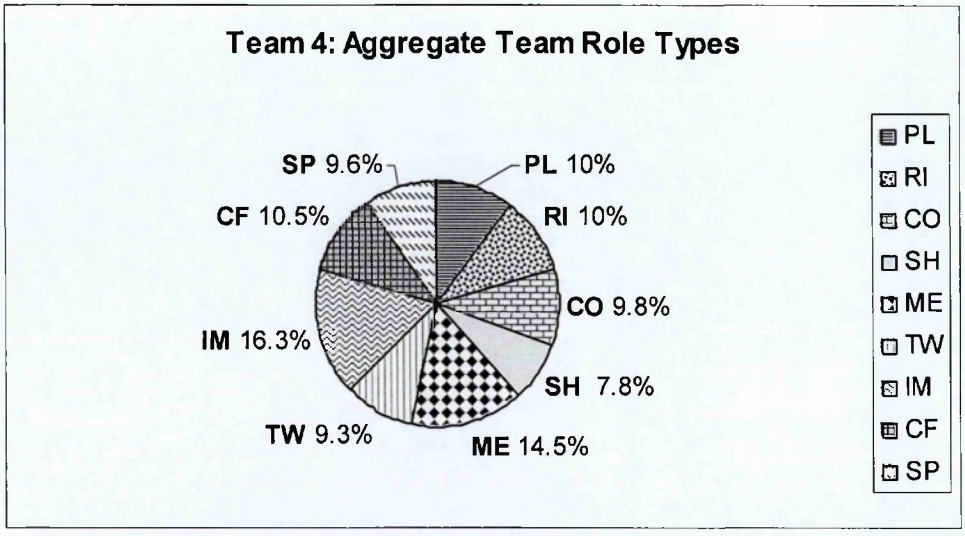
schemes of work for the department, best illustrates this dynamic. Three years previously, DJ (Team 4 leader) had brought over from her previous school, a set of Schemes of Work designed for a different set of pupils to the current ones. For 2 years neither EG nor BE (Heads of Key Stage 3 and Key Stage 4, respectively) questioned the soundness of their continued use within the faculty. In fact no one used the schemes of work to teach. Planning, in terms of content and coverage was done severally by members of the department with no effort made to standardize practice, rationalise task duplication, or verify the quality of lessons planned. When the issue was raised by BH in Meeting 2, this exchange ensued.

Verbal	Non Verbal
TW: ...it's difficult for all of us to be at the same point....the problem is that there are no schemes of work so you can't say unit 4 lesson 2 or whatever...	*Matter-of-factly. Looks at her hands while she speaks.*
DJ: of course there are Schemes of work...we've always had...hm?	*Interrupts, a bit annoyed. Looks around the table for support.* [this is a recurrent issue]
TW: ...you just follow the book. Sometimes you skip bits. I tend to go very fast whereas [name] is always two spreads behind...or so...where?	*Carries on. Looks at CD then at DJ.*
DJ: in the folder in the office... [name] What about year nine ones.	*Closes that line and changes tack. Looks at BE.*
EG: That's the problem with [subject] ...	*Smugly, a side comment.*
BH: ...only unit four's planned and we're not there yet...we agreed that they'd be ready in September...	*Looking at DJ then BE. Frowns.*
BE: ... I'm working on it... you have to...like... plan for top middle and bottom...	*Poker faced. Looks at TW and lets her speak.*
TW: We've already finished unit one ...so what's the point...?	*Interrupts.*
BE: ...that's the problem...not enough hours in the day...	*smiling*
DJ: ..item 6 then... marking....	*Firm voice. DJ guillotines the discussion. Is anxious to finish the meeting on time.*

Extract: Team 4 Meeting 2

In the case of Team 4, the evidence from observing meetings points to individual team role types being a more accurate reflection of team dynamics than aggregate team profiles. From matching the aggregate profile of this team with their collective behaviour in meetings it was not possible to see the balance of team traits at work which the aggregate role type profile (in Figure 4.10 below) indicates. If anything, Figure 4.10 confirms the paucity of Shaper, Specialist and Co-ordinator inputs in this team and the preponderance of Implementer traits. What the role type analyses pointed to in Team 4, was the urgent need for role learning by its members, in order to

begin to make the team more role versatile and therefore less compositionally dysfunctional (Belbin, 1993:28).



KEY: SH (**Shaper**); ME (**Monitor Evaluator**); TW (**Team Worker**); PL (**Plant**); IM (**Implementer**); CF (**Completer Finisher**); SP (**Specialist**); CO (**Co-ordinator**); RI (**Resource Investigator**)

Figure 4.10: Team 4 - Aggregate Role Types.

In terms of role mutation, both members of Team 3 who were also part of Team 4 did change role types. BE had switched from being an Implementer in Team 3 in which he was just one of many, to being a discerning and sober Monitor Evaluator in Team 4 in which he had responsibility for an area. Similarly from being a Shaper/Specialist in Team 3 in which she was a strand manager, BH in Team 4 where she was just another one of many teachers, had mutated into a Resource Investigator (see Table 4.17 below). The high pressured Shaper characteristics showed by BH in Team 3, where there was the need to inspire others to implement change, had mellowed to a disposition to explore opportunities and develop contacts common in Resource Investigator types.

Team Member	Team Role: Curriculum 3	Team Role: Faculty 4
BE	Implementer	Monitor Evaluator
BH	Shaper /Specialist	Resource Investigator

Table 4.17: School B - Role Mutation

As with Teams 1 and 2 in School A, the SPI data pointed to role mutation between Teams 3 and 4 in School B. Although it could be argued that the nature and the mandates of Teams 3 and 4 were so different as to necessarily engender a role switch, the fact that it also happened in School A, where both teams were middle belt, matrix-type (i.e. teachers are members of more than one team) operating units, suggests that teachers join teams with an idea in their heads as to what role they are expected to perform and dynamically adjust their responses to questionnaires with the particular team's *weltanschauung*[37] in mind. This tendency suggests that team role type may be a factor of context. However, as can be seen in Table 4.18 below, depicting the researcher's own role mutation over the four teams in Schools A and B, and given that the role type changes occur between types which share certain characteristics – for instance Resource Investigators, Specialists, and Shapers are all self motivating, self starting role types – could it be that role mutation only occurs around psychologically contiguous role types?

School	Code	Team	Role Type
A	TB	1. Pastoral	Shaper
A	TB	2. Departmental	Implementer
B	BH	3. Curriculum Co-ordination	Shaper/Specialist
B	BH	4. Faculty	Resource Investigator

Table 4.18: Schools A and B -Role Mutation over 4 Teams.

While the influence of context on teachers' perceptions of their role within teams is confirmed by role mutation data in both schools, evidence backing the claim that role mutation may only be possible between psychologically contiguous team role types is not strong in this study. In fact the very emergence of the possibility is a research happenstance.

[37] A world view, a conception which members of a society have of that society and its institutions.

4.2.4 School B: Teams 3 and 4 – Team Interactions.

School B: Team 3

The analysis of interactions within Team 3 comes with a health warning. As first mentioned in section 4.2.3 above, there were some members for whom interactional data existed without corresponding SPI role type data. In addition, attendance at meetings was never constant, varying between eight and eleven. GO and JB who had opted out of the Belbin SPI questionnaire were present at all three meetings.

On the whole, there were 281 recorded interactions in all three Team 3 meetings. Team 3 registered the highest proportion of task related interactions, which made up 65% of meeting throughput. In addition 22% of psychological acts were socio-emotionally positive and only 12% were negative.

Psychological Act	Meeting 1	Meeting 2	Meeting 3	Total per Category
Shows Solidarity (+)	9	2	8	**19**
Shows Tension Release (+)	10	5	3	**18**
Shows Agreement (+)	12	5	9	**26**
Gives Suggestion *	11	11	11	**33**
Gives Opinion *	20	2	2	**24**
Gives Information *	16	19	14	**49**
Asks for Information (?)	13	12	10	**35**
Asks for Opinion (?)	10	8	12	**30**
Asks for Suggestion (?)	8	3	1	**12**
Shows Disagreement (-)	9	2	4	**15**
Shows Tension (-)	5	0	6	**11**
Shows Antagonism (-)	7	0	2	**9**
Total Acts per Meeting	**130**	**69**	**82**	**281**

Table 4.19: Team 3 Curriculum - Overall Interactions by Psychological Act - Meetings 1, 2 and 3

This means that overall Team 3 members were happy to take part in proceedings and did not have a lot to complain about. In fact in Meeting 2, there were no acts which depicted tension or antagonism. This was different from the situation of the other three teams in this study, where every meeting registered some form of socio-emotionally negative behaviour.

A number of factors explain why this could have been so. Firstly, Team 3 meeting agendas were published yearly and so members had ample time to prepare for meetings. This reduced the stress caused by feelings of inadequacy when certain tasks could not be handed in/delivered on time. Secondly, the team was wholly staffed by managers who would tend to understand the need for such meetings and see it as an opportunity to project themselves and build networks across the school. Thirdly the mainstay of Team 3 meetings was professional development. This means that managers came in knowing that they would benefit from the knowledge and experience shared during the session. It could also be that as the format of training sessions revolved around the Key Stage 3 Strategy, parts of which overlapped with what schools are statutorily required to deliver, there was precious little to argue about. Or could it be that the team were so typically balanced in their role types that they were bound to operate in synergy? Was the fact of having a co-ordinator (DS) as team leader the reason for interactional success? In the particular case of Team 3, Belbin's position on this issue has a sting in its tail:

> [...] co-ordinators are usually adept in handling relationships, being able both to give orders and to receive them, and they deal especially well with talented people. But because they have a natural disposition towards management, style clashes can arise particularly with shapers [...].
> A Shaper subordinate is not to be recommended unless the SH has a secondary PL or RI role [...].
>
> (1993:64)

Considering Belbin's position that Co-ordinators seldom work well with Shapers as peers or subordinates, how do we explain BH's (DS's assistant) pattern of interactions over 3 meetings (2 instances negative tension and 1 of disagreement; the team average was higher), which was predominantly task focussed or socio- emotionally positive? Could it be because BH had an alternate Specialist role type? A possible explanation for this situation could be the shared psychological characteristics seen in BH's Resource Investigator role type demonstrated in Team 4, which curbed BH's predominantly Shaper instinct to challenge decisions made by a Coordinator boss.

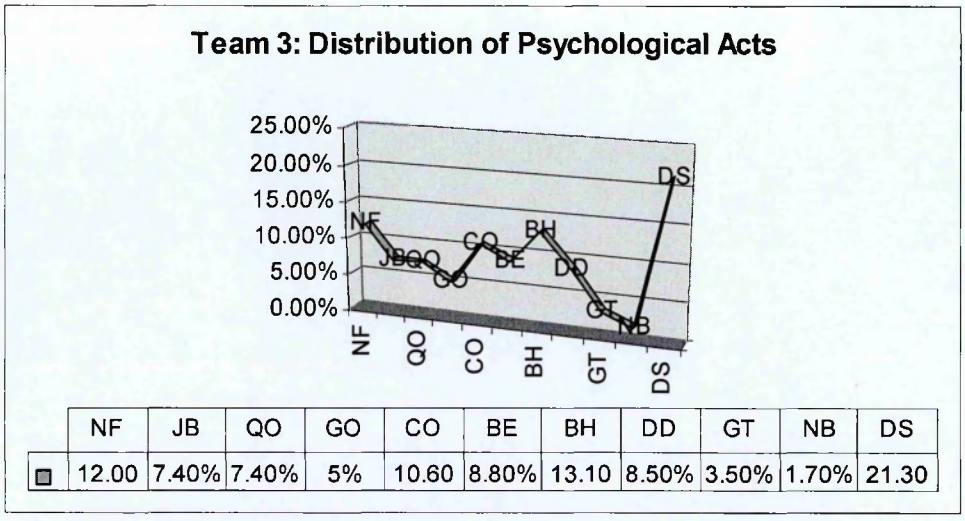
Table 4.20 shows that Team 3 had the highest number of members whose behaviour in meetings matched what they had claimed in their SPI questionnaire.

Team Member	SPI Team Type	Was observed (in more than one meeting) ...	Match/Mismatch?
NF	Monitor Evaluator	-not offering any opinions. -involved but not enthusiastic. -being moderate	Match
JB	[Opted out]	nil	nil
QO	Plant	-not offering any suggestions -not being very communicative	Match/Mismatch?
GO	[Opted out]	nil	nil
CO	Implementer	-Offering opinions -Offering practical solutions	Match
BE	Implementer	-not actively involved -showing disagreement to new ways of working.	Match
BH	Shaper Specialist	-suggesting solutions to difficulties. -providing technical information	Match
DS	Co-ordinator	-clarifying goals -making decisions -working to people's strengths	Match
GT	Plant	-not quite focussed on the task -seeking clarification on with details	Match
NB	Teamworker	-not making waves -predominantly socio-emotionally positive	Match
DD	nil	nil	nil

Table 4.20: Team 3 Curriculum-Comparing Team Role Types with Observed Behaviours

It was difficult to establish whether QO was a Plant match or not, as she was not making a lot of suggestions or airing out her opinions in a manner which would enable one to judge her creativity or inclination to solve difficult problems. She did however show typical Plant weaknesses to wit; a disinclination to co-operate. As for the two (JB and GO) who opted out of Belbin's SPI, it was possible to see from their interactions alone that JB did show some of the strengths and weaknesses of a Shaper, while GO, displayed Monitor Evaluator tendencies. It would have been rewarding to have been able to find out for sure, but this was a situation in which ethics prevailed over commonsense.

In terms of the distribution of psychological acts per member, all team members tended to interact more or less equally (see Figure 4.11 below) with turns distributed on a fairly flat line amongst members, if the team leaders are discounted.



	NF	JB	QO	GO	CO	BE	BH	DD	GT	NB	DS
▫	12.00	7.40%	7.40%	5%	10.60	8.80%	13.10	8.50%	3.50%	1.70%	21.30

Figure 4.11: Team 3 – Distribution of Psychological Acts.

Three factors peculiar to Team 3, account for the shape of figure 4.11 above. The first was the fact that because the meetings tended to take the form of in-service courses, the team leader's contributions were not only very many, but also took huge chunks of time. The total number of interactions by the team leader (DS) over the three meetings was sixty, accounting for 21% of the total of interactions. Her utterances were mostly within the information giving category. Viewed as such, DS had the strongest dominance in team meetings, compared with the other team leaders in this study but unlike the other team leaders the content of her interactions (i.e. presenting training materials) pointed to this dominance as being normative rather than positional. The second factor was the fact that a county consultant (DD) attended Meeting 2 and presented a course, but was not present for any other meeting. This meant that although her number of interactions in Meeting 2 was near the mean of overall turns per Team 3 member, when averaged over three meetings, this seemed low. The third factor was the fact that two team members (GT and NB) were absent from one meeting and this lowered their overall interactional score. The fact was that even for the meetings they attended, their contributions were less than the team average. For the rest of the Team 3 members, for most of the time, interactions were more or less evenly distributed as can be seen from Table 4.21 below.

Team Member	Meeting 1	Meeting 2	Meeting 3	Total Acts per Member	Comment
NF	19	5	10	**34**	
JB	6	2	13	**21**	
QO	8	3	10	**21**	
GO	9	2	3	**14**	
CO	15	5	10	**30**	
BE	15	4	6	**25**	
BH	18	8	11	**37**	
DS	33	8	19	**60**	
GT	3	7		**10**	Absent meeting 3
NB	4	1		**5**	Absent meeting 3
DD		24		**24**	Outside Speaker- present for 1 meeting only.
Total Acts per Meeting	**130**	**69**	**82**	**281**	

Table 4.21: Team 3 Curriculum: Overall Interactions by members- Meetings 1, 2 and 3

It follows from the above that the quality of communications within team 3 meetings, was on the whole characterised by a combination of both negative and positive politeness depending on the activity in which the team was engaged. As can be seen from these two excerpts from Meeting 2 (there is a five minute time lapse between the two excerpts) when the courses were being delivered (these accounted for more than 60% of meeting time) there were clear gaps between utterances, with members seeking turn allocation to ask questions or give information (Extract 1). Extract 1 is an example of an exchange following the SSJ (negative politeness) model.

Verbal	Non Verbal
DS: ...if there is any thing worth remembering here... it has to be that when analysing data for pupil progress, all these categories must be taken into account ... you also need to check later for the impact of whatever actions you said you would take...in the audit...saying whether they worked or not and why...yes [name GT] ...	*Tapping on laptop keyboard shutting down presentation, her delivery is truncated as attention switches between the computer and the team.* *Looks up and around, then stands up, smiles. Spots GT's hand up and calls her by name, and then half sits on the table listening. Pose is relaxed.*
GT: Um...how... do you get the data, speaking for myself... and I am sure others too, not all of us are good at pulling data from the system in a form which is useful for what you want to do with it... it takes hours to do it manually... I was thinking maybe...can we ask you for what we want?	*Puts her hand down smiles diffidently, looks around for support, she gets a few smiles [researcher counted 3].* *There is an intent look on GT's face but she smiles and her brows shoot up and then down, smiles again.*
DS: That is an issue which is being dealt with	*Smiles, then her face goes serious. Looks*

now. You know we are changing the system...for now... yes I suppose we could work something out... [name CO]...	*diffident.* *Looks at GT, smiles, her tone is supportive.* *She looks around, nods upward, calls the next person [the discussion continues in the same vein].*

Extract 1, Team 3: Meeting 2

However, when activities involved group discussions, turn-taking veered strongly towards positive politeness, characterised by utterance overlaps, no gaps and members completing each others' 'thoughts' (see Extract 2 below). In this situation seniority did not count as all members (bar DS and BH) had the same level of responsibility in the school (i.e. as Key Stage 3 managers).

Verbal	**Non Verbal**
DS: ...tell you what...we've got ten minutes...why don't we just pool [pull?] suggestions ...that way we can work to peoples' strengths... we [...]	*Her previous sentence was left unfinished.* *Speaking fast and smiling broadly.* *There are a few nods. BE has stared speaking. DS pauses and looks at him expectantly.*
BE: yeah [...] what? ...you mean like Maths helping English with their figures and...	*Carries on looking around. His gaze settles on QO [maths manager]. His smile is mocking.*
QO: [...] yeah right ...I guess if we get time in lieu...you know...protected frees we ...	*Smiles back, leans forwards.* *Her pace says she is speaking and thinking at the same time.*
DS: [...] could help others do it...it's finding time together for every one...	*Completes QO's thought and is also speaking and thinking like QO.* *Worried look.*
NF: that's the problem... I tried to...	*Interjects but the stream of talk does not allow her to finish.*
QO: ...solve that...and I am yours for the asking...	*Carries on from DS's utterance but is looking at NF.*
BH: Hmmm! You don't say!	*Looking at QO rubbing her hands. Mocking.* *[laughter all round].*

Extract 2, Team 3: Meeting 2

What emerged from the scrutiny of Team 3's interactions, was a sense that while seniority and status still led to turn-taking dominance, there was however, a sense of balance between marked and standard turn-taking, negative and positive politeness, and near perfect equality amongst its other members. This reflected the role balance within the team (discussed above) and presaged a lower potential for 'dysfunctionality' than was being seen in the other three teams in this study.

School B: Team 4

As with the other three teams in this study, Team 4 interactions were task dominated, as 58.8% of interactions were directly related to the task and not emotionally charged. However at 40.7% of total psychological acts, Team 4 was by far the most 'emotional' of them all. What was significant was the fact that at 23.2%, the better part of Team 4's socio-emotional acts, were negative (see Table 4.22 below).

Category	Percentage by Psychological Act Cluster.
Socio-emotional Area: Positive Reactions	17.5%
Task Area: Attempted Answers	39.6%
Task Area: Attempted Questions	19.2%
Socio-emotional Area: Negative Reactions	23.2%

Table 4.22: Team 4 – Breakdown of Psychological Acts

The fact that in two out of three meetings the highest number of utterances were questions asked, directed in the main at the leader may indicate that communication within the team was not well developed. Relationships within this unit were sometimes tense. In two out of three meetings there were fifteen occurrences of overt shows of antagonism (see Table 4.23 below), most of which were directed towards the team leader (DJ) and one of the two post holders (BE). Over the three meetings, each team member displayed antagonism at least once, over various matters[38].

Psychological Act	Meeting 1	Meeting 2	Meeting 3	Total per Category
Shows Solidarity (+)		10	3	**13**
Shows Tension Release (+)	2	2	4	**8**
Shows Agreement (+)	4	10	14	**28**
Gives Suggestion *	10	12	11	**33**
Gives Opinion *	8	11	7	**26**
Gives Information *	12	16	24	**52**
Asks for Information (?)	13	14	0	**27**
Asks for Opinion (?)	5	2	7	**14**
Asks for Suggestion (?)	8	2	3	**13**
Shows Disagreement (-)	12	9	12	**33**
Shows Tension (-)	4	4	9	**17**
Shows Antagonism (-)	6	0	9	**15**
Total Acts per Meeting	**84**	**92**	**103**	**280**

Table 4.23: Team 4 Faculty - Overall Interactions by Psychological Act- Meetings 1, 2 and 3.

[38] See Appendix C.

The quality of communication in Team 4 was distinctive and more similar in nature to that in Team 2. In Team 1 positive politeness and no-gap turn taking was a major feature of talk. In Team 3, turn taking patterns were a combination of the standard no gap no overlap model (Sacks *et al.,* 1974) wherein the speaker selected the next speaker such that conversations was interruption-free, and the 'no gaps lots of overlap' model (Coates, 1994), where utterances merged into each other such that the whole conversation was one stream of thought. Patterns of turn taking in Team 4 had this in common with Team 2 that the team leader DJ and at least two other team members valued the standard 'no gaps no overlap' pattern of turn-taking. This meant that turns were expressly sought and allocated. As seen from this extract from Meeting 3, when overlaps did happen, they tended to be considered as interruptions, with the speaker stopping and waiting to 'get the floor back'. This was an indicator of the strained relations within the team.

Verbal	**Non Verbal**
DJ: [...] why was the [Health and Safety] form not completed in detail then in the way we agreed...it was returned to me with a note saying 'more detail'.	*No facial expression, neutral controlled tone of voice.* *Pointing to the offending note on the table in front of her, frowns.*
EG: All I know is that I put in all the detail that it asked me to put in and [...]	*Leans forward. Tone is controlled and neutral.*
BE: I still have a copy of the one I did for the Year 8 trip last term... sorry...no carry on.	*EG looks at BE annoyed. BE realises EG has not finished what he was saying and puts two hands up, then down. Apologises.*
EG: I was saying that I filled it in the way it should...lists, passports... travel details... I was at the H & S course and I don't see why or what else she wants...	*Carries on tensely. He is turning the pages of a pile of papers in from of him...* *He is now clearly annoyed and going 'off on one'.*
DJ: In the future...	*Interrupts, sees EG's face and signals him to carry on talking.*
EG: Hang on, you're not gonna ask me to do it again, are you?	*EG is not intending to stop talking but does so. Looks at DJ briefly, then leans back in his chair. His facial expression is interesting.*
DJ: Okay...put simply, yes. How about you get it to her by Tuesday? [...] Yeah? [...] We can discuss any problems. Right, next item.	*DJ looks at EG. The OK is an acknowledgement that EG is allowing her to speak now. She puts an end to be argument and changes the topic. She is looking down.*

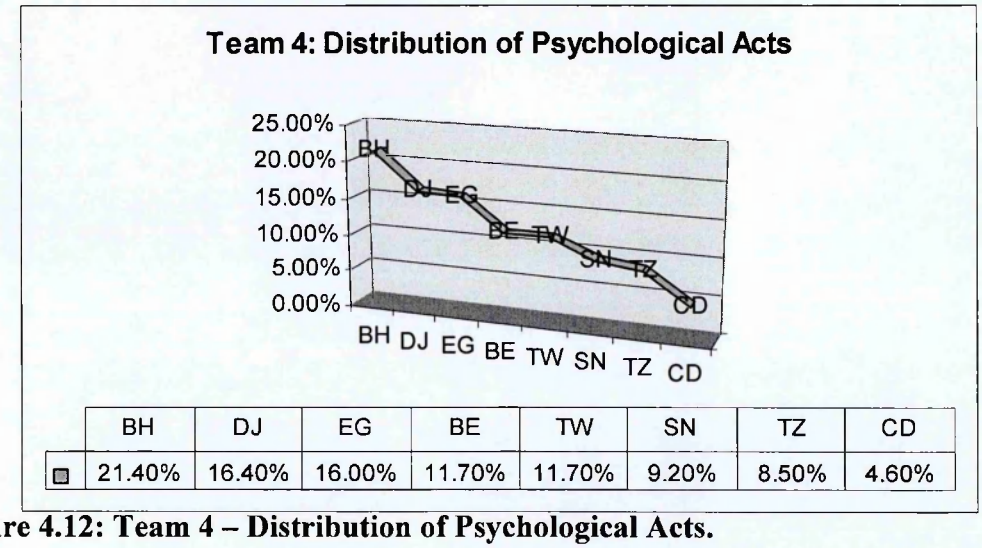
Extract: Team 4 Meeting 3

The fact was that Team 4 members tended to wait for their turn and were the least likely of the four teams to 'butt in' when another person was speaking. This had a

peculiar result. Frustration grew while members waited for their turn to speak. Usually, hands went up and heads tended to be bent, with eye contact hidden from others' line of vision. The result was that when members eventually got an opportunity to speak, they were already quite tense. This raises the suspicion that while members are waiting for a turn, not a lot of active listening of others' utterances could have been happening. The team leader seemed oblivious to all this.

An attempt to look at role type compatibility within this team indicated that although the practical approach of Implementers (DJ's role type) inclined them towards working well with broad sections of people including bosses and colleagues, their relationship style was formal and they were prone to engaging in disputes with other Implementers, and clash with Plants (Belbin, 1993:63). In Team 4, four out of the eight members were either Plants (1) or Implementers (3). The situation was complicated further by the situational fact that DJ's line manager BH (a Resources Investigator) was also part of Team 4 and this may account for why DJ was often reluctant to address problems fully within meetings, fuelling other members' frustrations further.

The occurrence, first noticed in Team 2, to wit; the increasing frequency of turn taking in proportion to positional authority, was starkly evident in Team 4 meetings (see Figure 4.12 below).



	BH	DJ	EG	BE	TW	SN	TZ	CD
▫	21.40%	16.40%	16.00%	11.70%	11.70%	9.20%	8.50%	4.60%

Figure 4.12: Team 4 – Distribution of Psychological Acts.

This is significant because Team 4 was not, as in the other three teams in this study dominated in terms of total utterances over 3 meetings, by its team leader (DJ), but rather by the person with the most positional authority (BH)[39]. Why this was the case in Team 4 when the same set up in Team 2 did not produce an identical outcome, could not be established by the study. Could it be that a perceived vacuum in the leadership of Team 4 had made this possible?

In terms of whether or not members' behaviour in meetings mirrored their self-perceived team roles, Team 4 had the highest proportion of matches of all the four teams in this study (see Table 4.24). Because of the high levels of socio-emotionally negative behaviour seen in meetings, most of the role type matches (Table 4.24) were not predicated so much on role type qualities, as on identified weaknesses, both allowable and unallowable (Belbin 1993: 51).

Team Member	SPI Team Type	Was observed (in more than one meeting) ...	Match/Mismatch?
DJ	**Implementer**	-organising action -engineering decisions -disagreeing with a new idea	**Match**
BH	**Resource Investigator**	-Challenging others' views -being overtly critical -attempting a follow up of arrangements	**Match**
EG	**Implementer**	-encouraging practical actions -instilling discipline	**Match**
TW	**Plant**	-proposing new ideas -proposing solutions to problems	**Match**
BE	**Monitor Evaluator**	-showing lack of interest -being open minded	**Match**
SN	**Completer**	-searching out errors -showing dependability	**Match**
TZ	**Teamworker**	-averting friction eschewing negative feelings	**Match**
CD	**Implementer**	-avoiding to commit -not being involved	**Mismatch**

Table 4.24: Team 4 Faculty-Comparing Team Role Types with Observed Behaviours

What emerged from a scrutiny of Team 4's interactions was a picture of a dysfunctional team. The fact that self-perception and action tended to match in this team (given that most of the identification factors were unallowable weaknesses), Team 4, more than the others in this study, was seen to be the most likely to benefit

[39] See Appendix B, Team 4 Faculty: Overall Interactions by Members – Meetings 1, 2 and 3

from role learning resulting from feedback from the SPI questionnaire responses. Members of Team 4 knew there was a problem and acted in consequence. The fact that both the team leader and one of the two post holders had been applying to leave the school for about a year, attests to this. It seemed that role learning would constitute a 'fight' response to the problems rather than the 'flight' which was being contemplated by the members seeking to leave the team.

4.3 Identifying Potential Teamworking Problems: Schools A and B

Just as Belbin's (1993) role types facilitates discussion of the relationships between team members, looking at the interactional data within the purview of Bales' frames of reference (viz; orientation, evaluation, control, decision, tension management and integration), makes it possible to describe the four teams' internal dynamics in terms of 'the problems which are logically applicable to any type of interaction system' (Bales, 1950:259) through some form of averaging.

As shown in Table 4.25 below, team interaction data indexes where problems are likely to occur. Compared with each other, the highest percentages indicate where a team's likely problems are more marked than in the others; for instance, as Team 1 dedicated the most energy in giving and asking for information (both verbal acts within the orientation area), this suggests that members in Team 1, tended more than others not to know what their job was about. In fact, as shown in Table 4.2 (in section 4.1.1 above) seven out of its thirteen members had been in the school for less than 2 years and were therefore new to tutorship within the school.

Frames of Reference	Team 1	Team 2	Team 3	Team 4
Problems of Orientation	**31%**	30%	30%	29%
Problems of Evaluation	15%	15%	**19%**	15%
Problems of Control	14%	**17%**	16%	16%
Problems of Decision-making	17%	18%	15%	**22%**
Problems of Tension Management	10%	9%	10%	10%
Problems of Integration	**13%**	11%	10%	9%

Table 4.25: Comparative Interaction Process Analysis by Frames of Reference

In addition, the fact that the senior management of the school had been completely changed, led to a period in which most of the school policies were being revised. This

is significant because given School A's behaviour profile (see section 1.1.1) Year Teams were stated by senior management to be the key to the success of any project aiming at changing the school's ethos. The 'surfeit of information' resulting from the change drive in School A was best shown in Team 1, although this begs the question of why Team 2 being in the same organisational context did not mirror the same potential problems. Was Team 3's high potential for problems of orientation due to the fact that the focus of their work (the Key Stage 3 Strategy) was new?

Team 1's potential problem area of integration (viz; displays of solidarity and antagonism) showed that it had the potential for members' penchant for *sensations fortes*[40] to spill over to conflict. The balance was just slightly positively marked towards solidarity (10 psychological acts), with shows of antagonisms slightly lower (7 psychological acts), but strong enough for conflicts to arise. The functional profile of the team as an advisory meeting made the occurrence of conflict a high probability. In fact, overt conflict did not arise.

In the same vein, Team 2 was most different in its potential to have problems of control. The interactional data indicates that a lot of team energy was expended on voicing opinions. There were more opinions given than were asked for across the three Team 2 meetings. In fact in two out of three meetings, no opinions were asked for by the team leader or anybody else. The team leader (DBE) made a comment which indicates her awareness of her leadership style being firm. Referring to a middle management meeting which had taken place a day before Meeting 2, which had frustrated her, DBE made this rather revealing comment: "This either-or business does my head in...you know me... I just want to be told what to do in the simplest form possible ... no danger of either-or happening here is there? [*said with a smile, to which TB responded "not a chance"*]" To cross check DBE's comment, TN (chosen for how little she had said or done over three meetings) was asked after Meeting 3 how come she had been so 'quiet' in the meeting. Her reply "... you know [name of team leader] she's not one to let you speak your mind ... talk about control freakery ... sorry !", indicated that TN attributed her relative non participation in this meeting (as well as others) to the fact of the team leader dominating meeting time with her own agenda and

[40] The forceful expression of feelings

interpretations and imposing a turn taking attribution style which could be interpreted as stifling participation. This probably made other members limit the extent of their interactions. The fact that the total number of psychological acts in Team 2, was the least of the four, at 159 with a membership of eight, illustrates the effect of such control. Team 4, with the same number of members managed 280 psychological acts. Team 1 and 2 figures were around the same.

Compared with the other teams in this study, Team 3 did not stand out in any respect and this may be a confirmation of its effectiveness, from a purely teamworking perspective – a feature first noticed by the balance of its team role type composition.

Team 4 had problems of decision making on account of the number of disagreements which their interactions generated. Problems with decision making almost always index problems with leadership. This may explain why BH (the positionally most senior member of Team 4), managed to dominate interactions where other teams were dominated by their own team leaders. Bales' (1950) frame of reference did not indicate conflict and/or tension management as a potential problem for Team 4. As discussed in 4.2.4 above, this could be due to DJ's ability to move swiftly between topics to avoid tension spilling over. It could also be a result of the formal turn-taking style prevalent in Team 4 meetings.

4.4 On Team Roles and Interactions Schools A and B

From analysing data collected in both schools on team roles and interaction alone, it is possible to make the following deductions:

First, that within the team context, the dominance of particular individual team types is not, of its own, useful in gauging the nature of team interactions. However, when the team role components are aggregated irrespective of the members who exhibit them, the character of the team tends to change. At the same time the dominance of certain team types in the aggregate team profile holds clues as to the nature of team interaction. This means that as far as team-working is concerned, aggregate team profile may be more significant than the individual team roles of members in analysing teamworking within schools.

Second, that team role types are not solely specific to individuals, they also tend to be a function of the individual in relation to a team. Because an individual member's role type can mutate between teams, the declaration of a role type outside a team is problematic. Going by evidence from the four teams in this study, this means that saying, for instance 'I am a Shaper' is of no significance. However, saying 'I am a Shaper in Team X' becomes meaningful because the team determines the role type. This establishes role type mutation as a function of context.

Third, that it is not only possible for an individual team member's role type to mutate if they belong to two different teams but (if mismatches between self-perceived and actual role types as deployed in interactions are taken into account) also within the same team. This is so because, through the analysis of psychological acts within meetings it is possible to verify if team members' espoused role types as revealed in their Belbin SPIs are in fact their team roles in action. This means that it is difficult to use role type to speculate about interactional patterns since it is possible for self-perceived role types to mismatch with observed behaviour. Sometimes members' actions are so markedly different as to exemplify the characteristics of a role type completely different from the one they had professed themselves to be to start with. Furthermore, as seen from members who opted out of the Belbin SPI questionnaires, self-perception, albeit useful as a starting point, is not a *sine qua non* for identifying roles types in teams. The evidence shows that members' team roles in action can be inferred from the pattern of their interactions with others, if the team role typology is used as a frame of reference by the observer.

Finally, that functional and structural analyses of joint work, roles and interaction patterns alone, are limited in their capacity to explore the teamworking dynamics – the fabric of relationships. However, the strength of such analyses resides in the data generated, which when used within frames of reference, enable a deconstruction of the teamworking process. This in turn facilitates the understanding of how teams operate processes such as role deployment and inter-dependence and how these are helped or hindered by particular circumstances and contexts.

Section 5

Discussion in Relation to Literature and Key Questions

Structured around the key questions of this project (see section 1.3), this section will draw from the discussions in the literature review, from the findings from observations of the four teams at work as well as from team members' own comments in the five minute interviews, to elicit patterns and themes which validate, negate or refine existing knowledge about teamworking. As stated in section 3.6 (the research methodology) of this project, analyses in this section are 'grounded' (Nias, 1991: Brunetto, 2001), such that 'soft data' is used to interpret findings, where the contextual facts surrounding social phenomena do not easily lend themselves to quantification. This explains the frequent use of descriptive text.

Section 5.1, which originates from the initial key questions of the study, will look at how team members understood their team roles, based on the degree of role learning emerging from a comparison between members' self-perceived team roles and their actions observed in and out of meetings. The findings showed that the degree of similarity between members' team role enactment and the picture painted in the literature varied depending on what their functional roles within the school were. Section 5.2 will address how team members' team role deployment in action aligns or conflicts with existing literature on team roles. The subsections in 5.2 analyse the different patterns - classified as ordinary team members, ordinary members who were leaders of other teams and team leaders - of role enactment in the light of existing literature.

In section 5.3, the nature of joint work and interactions are examined in terms of the degree and quality of task and outcome interdependence. It uses comparative evidence from the findings to establish which of the four groups in the study can be identified by its tasks and processes as 'teams' when compared to the prescriptive acceptations of 'teams' as discussed in the literature. In section 5.4, the analysis of team interactions is looked at in the light of Bales' conceptualisation of behaviours in small groups. Tension management, which emerges as the only one of Bales' six frames of

reference which is not vindicated by findings is analysed in the light of conflict related literature. Finally in section 5.5, the organisational contexts of both schools in this study are analysed as ecological factors affecting teamworking. In this section, existing literature is grounded in descriptive facts emanating from the findings and these are used to address aspects of the key questions of the study.

5.1 How did Team Members Show Understanding of their Roles?

In section 2.3.2 of the literature review, team roles were defined as the dynamic patterns of association between team members as they worked together to achieve common goals (Woodcock, 1989; Margerison and McCann, 1990; Belbin, 1993). This section examines how team members saw and deployed their team roles, especially the extent to which function influenced team members' understanding of their roles.

On account of the fact that the nature of the tasks performed by the four teams in this study (see sections 4.1.2 and 4.2.2) was mostly additive (with conjunctive working seen in only one of the four teams), this study bore out the consensus in existing literature around the idea that teams were in fact made up of individuals put together to achieve goals which individuals on their own could not achieve (Oakland, 1989; Bell, 1992; Belbin 1993; and Tranfield *et al.,* 1997). In both schools, team members and their leaders recognised a superior agency (typically made up of the head teacher assisted by an interview panel) as responsible for the fact of their working together. A significant majority of team members attributed their appurtenance to their team to being a direct result of their appointment to fulfil a certain function, based primordially on their subject specialty within a subject team. After appointment, the assumption was made by management and accepted by appointees that they would work in a team. In the study, all the nine main scale teachers who had been in Schools A and B for less than 2 years were asked whether anyone had given them an explicit 'teamworking brief'. None could remember any such occurrence. However SL's and TZ's responses typified the nature of the awareness that appointees brought with them to their work:

> '... during TP [teacher training] you work with people in the department. You learn that you can't survive without depending on others in some way. [...] it just carries on from there...'
>
> (SL, School A, Team 1)

> '... you teach a subject don't you? [...] so no one really has to tell you where you fit in. You just come and take your place and make useful friends hopefully [...]. You can't work otherwise.'
>
> (TZ, School B, Team 4)

On the whole, it was evident that in both schools, team members' behaviour did not indicate that they had any choice but to work with whomever they had in their teams (Diary Entries, 12 May 2002 and 16 January 2003). The same applied even for members who were perceived not to exhibit 'team spirit' or whose work was not perceived to be significant in its contribution to goal achievement. This meant that as far as ordinary team members were concerned, team composition was a given, over which they had little control. Three out of four team leaders stated having had a say in the selection of some (the highest number was four) of their team members. None of them had used, or seen anyone use, any form of role type audit or inventory to select team members.

Campion *et al.* (1996) state that roles are activities expected of an incumbent of an office aimed at enhancing the predictability of their interactional behaviour. Other authors (Scott, 1997; Chiu *et al.*, 1998; Siegall, 1999) have posited that role itself is not important, but that it is the network of relations amongst roles that should be examined for significance to team and organizational dynamics. With specific reference to team roles, Belbin (1993) distinguished between functional and team roles arguing that while team roles indexed types of inter-relative behaviours, functional roles pertained merely to the technical cognitive demands of any given job. Belbin's (1993) critical argument was that teams were more likely to perform effectively if team roles, not just functional roles were taken into account in the selection of teams and the management of teamwork. In this study, this distinction was reflected neither in the actions of team members nor in those of their leaders in both schools. Functional roles were carried out within teams, as set up within the

school structure. This means that teamwork was seen and accepted as a structural norm, which was itself seldom modified. For instance the most recent structural change in School A had taken place ten years previously, creating an ICT department. In School B the structural change which followed the appointment of a new head in 1997, had amalgamated similar departments into Faculties. The structural entities were called 'teams' by teachers, middle and senior managers. No one questioned this nomenclature.

At the time of this research, these structures were established and were expected to, and to varying extents, did operate as teams. The fact was that teachers came in to school and did the work for which they were trained i.e. teaching lessons and dealing with pastoral issues. When they had acquired sufficient experience and professional development in management, they were promoted to positions which involved managing aspects of the school development plans which had either a curriculum or pastoral focus, or a combination of both. While areas of professional proficiency such as managing behaviour, planning, assessing and marking, and extending the more able pupils *inter alia* were valued and developed in varying degrees in both schools, team role type knowledge was neither acknowledged nor seen as vital to teachers' cornucopia of skills.

Key aspects of managerial psychology were left for managers to handle commonsensically or as a form of operance of particular personality traits. For instance, none of the ordinary team members had heard of team roles in the way in which they are conceptualised by Belbin. They therefore did not behave in ways which showed awareness of the need to be sensitive to others' team role attributes. As discussed in 5.2 below, even when the SPI results were discussed with team members in the research, only very few showed superficial interest; with the majority operating as if team role types were irrelevant to their daily practice. All four team leaders attested to having - at some point in their careers - received middle management training which featured the management of teams, but again this focussed on managing for quality in teaching, team motivation and professional development. Somehow, this excluded knowledge on team composition in terms of team role. As a result, only one out of the four leaders had detailed knowledge of team roles, with a second having previously vaguely heard of Belbin's team role types. None of the four

leaders actually put the knowledge - once acquired through the SPI questionnaires and feedback - into visible practice.

Belbin (1993) states that for team members, an awareness of team roles is important because it helps develop mutual role awareness and role learning inherent in team working, so as to achieve the role balance which would predispose the team to working together more effectively. This means that people could inhibit their natural behaviours, or change its form to take account of immediate factors of their team environment:

> By recognizing the roles of others and by becoming aware of the range of roles that are available to the self, along with those that are not, people learn to modify their behaviour to take account of the situation. So it becomes possible to manage an association with others for whom the individual feels no affinity.
>
> (Belbin 1993:29)

In the study, if such role learning existed in both Schools A and B, it tended to be implicit rather than explicit. Apart from the Team 3 leader, none of the participants of the study had heard of any nomenclature relating to differing team role types and it could be safely assumed that their ability to function within teams was a characteristic of their professional qualities rather than of an imperative to develop role diversity in the way in which Belbin conceives it. The fact was that as a team comprising all the nine role types, Team 3 did display a form of harmony that was absent in the other teams in this study. However, there were many other possible reasons why the type and nature of interactions within Team 3 were less problematic than elsewhere; the relative youth of the team, the skill and experience of the team leader, its non controversial mandate, being just three of such.

Team members' role types were examined in this study using Belbin's Team Role Type Self Perception Inventory (SPI), to gauge how these roles were deployed in action within teams. Data from this study (see Table 5.1 below) makes it possible to suggest that the members whose self-perceived team role types mismatched their behaviour over three meetings could have been engaged in role learning after discovering their roles types and finding it not to reflect their espoused theories

(Argyris and Schon, 1976). This is so because, as the SPIs were administered before the start of observations, it is possible for members to have modified their behaviour in meetings towards their aspired role types, especially as the expected behaviours, allowable and unallowable weaknesses pertaining to each role type was communicated to each team member on return of the questionnaire results to the respondents, together with an entreaty to discuss the results with the researcher. All bar one team member in School A (UEV, Team 1), took up the offer to discuss their role type. As seen later in this section, it is significant that UEV did acknowledge a basic form of role learning, spurred on maybe by the fact that a lot of her team role characteristics were unallowable weaknesses which she was not ready to countenance. It would have been interesting to study in greater detail, the degree of progression in role learning in all the respondents of the SPIs, but although meeting observation was spread over a period of months, with only three meetings per team analysed in detail, not enough data was available to make judgements on progression in role learning possible. The data available therefore only evidenced the possibility of role learning from mismatches between self-perception and actual behaviour in two out of the three meetings observed.

It follows from the above, that role learning was more likely in School A than in School B. Within School A for instance, more than half (53.8%) of Team 1 members mismatched their SPI role type and in Team 2 there were slightly more mismatches than matches (see table 5.1 below). The difference was in fact one member. When the three members of Team 2 (NE, TB and GEF) whose mismatching behaviour had accounted for the possible role learning were asked if awareness of their role types from the SPIs had led to any change in the way they behaved in meetings, two could not remember what their Belbin role types were and one said 'no'. Given that the majority of team members in School B (63% in Team 3 and 87.5% in Team 4) also, did not show differences between their self-perceived role types and the types of behaviour displayed in meetings, the Team 2 members' comments call into question the existence of role learning as a consequence of role awareness which Belbin advocates - in the two schools studied here in any case.

	Percentage Matches	Percentage Mismatches	Neither	No data
Team 1	30.7%	**53.8%**	15.3%	0%
Team 2	25%	**37.5%**	12.5%	25%
Team 3	**63%**	0%	9%	27%
Team 4	**87.5%**	12.5%	0%	0%

Table 5.1: Role Type Match/Mismatch Indicating Role Learning.

The mismatch figure (53.8%) in Team 1 indicated that if it was possible for role learning to happen within teams in a school, this is where it would occur. All seven of the mismatched team members were asked how their behaviour in meetings had changed since completing their SPIs. Three said it had not. HO's (Team 1) reaction to the fact that in three meetings, all the role type traits she exhibited did not align to her SPI questionnaire responses, was dismissive:

> "I spend every day, all day teaching, planning, marking, chasing, hustling ... it's not because some guy [*Belbin*] decides that I am X or Y that I'm going to be X in a meeting, when I have serious things to talk about. When you come to a meeting, it's a relief to talk to people for whom you don't have to play tricks and power games to get attention. TB [*Team Leader*] is alright most times, so in team meetings, I go with the flow...never mind my being a monitor evaluator or whatever... frankly, at the end of the day, I am too tired to be anything ..."
>
> (HO, Team 1 School A)

Significantly though, four members mentioned aspects of their behaviour in meetings which were, in the words of UEV in Team 1 '... being worked on'. This means that in Team 1, some team members did understand their team role and were attempting to mitigate elements of the unallowable weaknesses that their SPIs had brought to light. In UEV's case, there was a conscious effort put in to acquiring the more positive characteristics of her role type (Resource Investigator). This is in line with Belbin's (1993) view of the effect of role type awareness. With the other four, the study could not confirm whether there was a conscious effort put into role-learning or whether their acknowledgement of areas of improvement was an attempt to make them 'nicer' people.

The overall picture in three out of the four teams in this study points to the fact that team members' understanding of their role types based on Belbin's SPIs, was not a significant factor in the enactment of their roles in action. Members did not

necessarily see their roles in terms of 'team' roles even after contact with possible team role type knowledge as suggested to them by the Belbin SPIs. This may have been because, as argued in section 2.3.2, other sociological and environmental factors such as availability, capability or micropolitics may account for how team members saw and enacted their roles. This is more in line with literature (Senior, 1997; Partington and Harris, 1999) which questions the impact of team role awareness on the way in which team members carry out their day to day work.

5.2 How were Team Roles Deployed in Action?

Ingram (1996) has likened teamworking to marriages in which individual subjectivities are superseded by collective interests. Bell (1992) advocates that shared responsibility at all levels is crucial to the provision of good education and suggests that the recognition of the task and processes of the team are essential to goal achievement. In describing teamwork as 'playing from the same hymn sheet' (1992:45), he advocates the type of interdependence which goes beyond 'Year' groups or 'Departments'. In section 2.4 (the literature review), teamworking was examined as a process of cooperative role enactment within teams. Bell (1992) argues that for there to be teamworking, groups must feature the following five characteristics notably; the presence of shared perceptions, a common purpose, agreed procedures, commitment and cooperation and the open resolution of conflict. The most observable of these – shared purpose, agreed procedures, cooperation and the open resolution of conflict were examined in the light of team members' behaviours and actions within meetings. The study found that there were differences in the ways in which ordinary team members, members who were leaders of other teams and team leaders deployed their roles in action.

5.2.1 Teamworking by Ordinary Team Members

In terms of the existence of a shared purpose, all members of the four teams tended to understand why they were members of say Team 1 and not Team 2. This was mostly because on or soon after recruitment, allocation to teams was set by senior management. However, in terms of the awareness of the specific team goals, more than half (64%) of the team members were able to remember the salient aspects of the

team objectives which related to their functional roles, as enunciated in the parts of the School Development/Improvement Plans relevant to their team. This was more so in Team 1 Pastoral (School A) and Team 4 Faculty (School B) than in the other teams. As discussed below (see Table 5.2) this could have been due to the success or failure of the team leaders in reinforcing team goals. However, it is possible that team members did not feel the need to know team goals because, with the majority of joint work in three of the four teams being additive (Steiner and Rajaratnam, 1961) rather than conjunctive (see Tables 4.3, 4.4, 4.15 and 4.16 in Section 4[41]), work was planned in meetings but implemented independently. The fact that the bulk of teachers' time is spent in the relative isolation/autonomy of their classrooms, where they could implement group decisions in a manner commensurate with their understanding of what team goals are, made it possible to consider the teamworking process as secondary to their functional and technical roles. This is in line with Wallace's (2001) view, that teacher agency in role deployment puts teamworking within the zone of policy, but not necessarily within the zone of practice.

In terms of team procedures, ordinary members did not show overt awareness of any procedures. Things like punctuality to meetings or the protocol of turn-taking during interactions did not follow any specific rules. For instance in both School A and B, seven out of the nine meetings observed started at least 10 minutes after the stated time. For several contextual reasons (such as the detentions system in School A and the peculiarities of the twin site in School B) lateness to meetings seemed to be accepted as normal. Most other procedures for team operation were left in the hands of team leaders who did not enunciate them.

Regarding cooperation, the majority of ordinary team members (94% of the total of members in the four teams) showed an inclination to cooperate with whatever conjunctive work had to be done in the meetings; but the turn distribution patterns from the Interaction Process Analysis (IPAs) show that those team members who were unwilling or unable to cooperate or interact were left alone, with little or no attempt made by either leaders or other members to rope them in. This was observed

[41] All tables from section 4 cited in section 5 have been compiled separately in Appendix E for reference.

in all four teams. What this shows is that the operation of team procedures were not foregrounded and were left to individuals to manage as they saw fit.

Literature on the subject of conflict resolution within teams abounds with references to the ideal of open conflict resolution (Walton, 1987; Bell, 1992; O'Neill, 1997; Wanda *et al.,* 2000). The study found that although on the surface some members did make utterances which showed antagonism, this never actually degenerated into open conflict. According to Walton (1987), conflict has the positive effect of clarifying positions because it forces people to articulate their view points. Ordinary members visibly failed to pursue lines of discussions which were likely to lead to overt conflict. This was more the case in School B than in School A. This means that with respect to ordinary team members, the proposition (O'Neill, 1997) that teams necessarily exploit constructive conflict to arrive at better decisions, was not verified in this study. It was in leaders' interests for control, to not encourage the discussion of controversial issues. None of the four leaders here showed an inclination to probe disagreements which arose in the course of discussions.

The pattern of behaviour was slightly different for members who were leaders of other teams.

5.2.2 Teamworking by Ordinary Members who were Leaders of other Teams

Ordinary team members who were leaders of other teams took their roles within the team quite seriously and could be seen making an effort to act them out. This may account for why all team members' behaviours bar one in Team 3 (School B) matched their SPI role types, even though, as Team Leaders in their respective groups it was expected that some degree of role mutation would occur between their roles in Team 3 and whatever role they played in their departments. Such role mutation was manifest in members who belonged to two teams in either school. This attested to the possible existence of team role versatility which Belbin (1993:78) proposes as an advantage of team role type awareness.

Ordinary team members who were leaders of other teams were more likely to take turns than other members of the team. In School A, they were also more likely to be

the generators of talk overlaps and interruptions (see Tables 4.7 and 4.10 in section 4.1.4[42]). The bulk of their interactions were geared at supporting or challenging team leaders when seemingly unpopular decisions were being taken or discussed. The degree to which ordinary team members who were leaders of other teams aligned to the ideals of team working was higher than in ordinary team members discussed above. The distinctive compliance with team objectives and the comparatively even turn distribution ratios in Team 3 (made up of leaders of other teams) which gave the impression of harmony, amplified the effects which the team leaders as team members could have on the success of team working within a school. Members who were leaders of other teams were more likely to have their views heard and taken into account, demonstrating that within teams, seniority in other areas of the school affected team interaction (see Figures 5 and 6 (in section 4.1.4) also Figures 11 and 12 (in section 4.2.4)).

The evidence from respondents' reactions and use of the information from the Belbin SPIs (see section 5.1 above) has shown that this could not be as a result of their more heightened use of the salient qualities of team role manipulation or deployment. It is therefore fair to suggest that as these members had responsibility in other areas, they were more politically 'savvy', and were more likely to use the meeting arena to deploy normative power, gained from their exposure to information which their positional success had availed upon them. This finding tests the views in the literature (Johnston and Pickersgill, 1995; Ogawa and Bossert, 1995), depicting equality as a distinctive feature of interactions between members within teams.

In terms of a shared purpose with other members of the team, this group of members (DBE and SD in Team 1; TB and GEF in Team 2; and BH in Team 4) were more likely than other members to relate their utterances to team goals than other members, if the team leader is discounted. The members with some sort of seniority within the school could not only identify the tasks which teams performed together, but could also communicate the areas in which team members could call on others for assistance. They were also more likely than ordinary members to make aspects of teamworking procedures explicit by their reference to issues of consultation and the

[42] See Appendix E

right for their views to be taken into account in decision making. Apart from DBE in one Team 1 meeting and the two post holders (BE and EG) in Team 4, the IPAs show that this group of team members very rarely posed psychologically negative acts within meetings and tended to back the team leader's decisions and actions.

In terms of the resolution of conflict, while there was no overt acknowledgement of the existence of conflict within meetings by leaders themselves, when team leaders were subject to sustained challenge from other members, they were almost invariably 'rescued' by members from this subgroup. There was no instance in all the four teams of this rescue function being undertaken by an ordinary member who did not have positional power elsewhere. In this respect, the two post holders in Team 4, and GEF in Team 2 were the exceptions in the sense that these were the only cases in which longstanding interpersonal disagreements with the team leader could be seen obviating this 'fire fighting' role. In Team 2, these disagreements were so engrained and longstanding that it politicized any utterances made by either in the presence of others. There had been bad blood between DBE and GEF for many years over several issues to the extent that the capitation allocation for running the one part of the department had had to be devolved directly to GEF. This created an administrative and resource management anomaly in the department, which DBE found threatening. It is in Team 2 that the rescuing role of leaders of other teams acquired its clearest illustration in the regularity with which TB had to intervene to 'bale out' the team leader when interactions turned negative on account of the mutual disliking which was apparent in the comments which GEF was making about aspects of policy to be implemented or deadlines. On two occasions TB was seen suggesting compromises which allowed the team leader to 'save face' and the team to reach agreement.

This fire fighting role by members who were leaders of other teams, was not visible in Team 4. Here, maybe because the disagreements tended not to have personal undertones but were mostly work related, challenges to the leader's authority were glossed over. For instance, DJ the team leader, by some quirk of personality used pauses as a bridge over difficulties such that movement was made from one point of discussion to another, without closure being achieved. Where in Team 2 someone in this category would have stepped in to 'bridge the gap', in Team 4, no one did. The exchange (Extract: Team 4, Meeting 2 in section 4.2.3) in which discontent about the

inexistence of detailed Schemes of Work – a responsibility of the team leader - was being aired, is a case in point. This resulted in meetings ending with decisions which did not necessarily enjoy wide consensus being taken.

In essence, Team 2 and Team 4 were exceptions. All the team members who were leaders of other teams (this included all eight members in Team 3, six members in Team 1 and two of the three post holders in Team 2) played this peacemaker role at least once during the duration of the research.

5.2.3 Teamworking by Team Leaders

In this study, team leadership was examined on the strength of Freud's (in Luft, 1984) assertion that the notion of groups was impossible to envision if the leader is disregarded. Acceptations of the notion of leadership reviewed in section 2.3.3 relating mostly to head teachers within schools, proposed vision making, goal achievement and team building (Day *et al.,* 2000; Beare *et al.,* 1997; Southworth, 1995) as constituting the main qualities of leaders. Team leaders were asked in the five minute talks to identify which actions best described their practice within the teams.

In the four teams of this study, all team leaders agreed that team building for goal achievement was an important part of their role. Two out of four team leaders (DJ, Team 4 and DBE, Team 2) said that vision making was the province of the head teacher, and that their role was to implement the Head's vision. This was born out in their actions (see Table 5.2 below). TB (Team 1 Leader and acting assistant headteacher) and DS (Team 3 Leader and deputy headteacher) said that some of their actions emanated from their own visions. However, observation showed that DS was more likely to mention what her vision was in the meetings, than TB. The fact that DJ and DBE (Team Leaders 4 and 2) were heads of departments, while TB and DS had other duties in the senior management team could have accounted for the higher awareness and therefore more frequent enunciation of their vision. All four team leaders said that they were actively involved in building teams.

In order to describe team leaders' leadership behaviours, it was necessary to work out what their espoused theories were, so that the gap between account and action could be used as a mental framework for understanding their actions within meetings.

	Actions which made, enacted or clarified vision.			**Actions which clarified, or showed working to goals laid down in Development Plans.**			**Actions which encouraged, supported or motivated the team to co-operate.**		
Team 1	Meeting 1	Meeting 2	Meeting 3	Meeting 1	Meeting 2	Meeting 3	Meeting 1	Meeting 2	Meeting 3
	Yes	No	No	No	Yes	Yes	No	No	Yes
Team 2	Meeting 1	Meeting 2	Meeting 3	Meeting 1	Meeting 2	Meeting 3	Meeting 1	Meeting 2	Meeting 3
	No	No	No	Yes	Yes	No	No	No	No
Team 3	Meeting 1	Meeting 2	Meeting 3	Meeting 1	Meeting 2	Meeting 3	Meeting 1	Meeting 2	Meeting 3
	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No
Team 4	Meeting 1	Meeting 2	Meeting 3	Meeting 1	Meeting 2	Meeting 3	Meeting 1	Meeting 2	Meeting 3
	No	No	No	Yes	No	No	No	Yes	No

Table 5.2 Observed Team Leader Actions in Relation to Three Aspects of their Role.

Table 5.2 above, shows a summary of leaders' actions and utterances which could be interpreted as vision making, goal achievement and team maintenance action over the three meetings observed. It is a new way of operationalizing the salient aspects of team leaders' roles within teams, based on existing literature on the mandate of teams (Adair, 1988; Bell, 1992, Nash, 1999) and was created to facilitate the recording of observations. It shows that as far as team building was concerned, team leaders' actions did not exactly mirror their theories about this aspect of their role. In Teams 1, 2 and 4, there was only one occurrence each in which the team leader made a conscious effort to get people to work together or consciously promote group think. The exception seemed to be in Team 3 where, in two out of three meetings, members were actively encouraged to collaborate in sharing ideas from KS3 Strategy implementation in their respective teams. The philosophy in Team 3 was one in which excellence in one area of the curriculum was insufficient, success had to come from every one replicating the work of the team in their respective areas (Diary Entry, Meeting 2 Team 3, May 2003).

Observed from the intra team level when the teams were at work during meetings, the four team leaders' actions in the area of goal achievement did not seem to be problematic except in Team 4. In at least two out of three meetings their utterances

and action related to some goal stated in their Development Plans (see Table 5.2 above). The exception was in Team 4 where explicit mention of team goals happened in just one of the three meetings. This was to do with Schemes of Work. As discussed in section 4.2.4, the fact that a substantial amount of Team 4's energies (accounting for 23.2% of overall interactions) were spent on disagreements and other socio emotionally negative acts, may account for why the focus on goals was at its weakest in Team 4. With only 58.8% of psychological acts (see Table 4.22[43]) being task focussed, it was evident that DJ the Team 4 leader was either unable or unwilling to steer interactions towards achieving stated Faculty goals. As discussed in sections 4.2.1 and 4.2.4, several 'teamcentric' and contextual factors explain why the 'psychological contracts' (Bell, 1997:122) to do with compliance, identification and internalisation on which team interactions are based, was problematic for goal achievement in Team 4. This is surprising because the *prima facie* tally of joint work in Team 4 (see Table 4.16) had showed it as predisposed to action. It is possible that this joint work could have been being done ritualistically since the team leader made no effort to link the action explicitly to any goals.

Nash (1999) states, in relation to goal achievement, that the role of the team leader consists in adding value to their own achievement by doing real work, and by focussing on the results. This is done by allocating workload to members of the team through the establishment of objectives in key results areas commensurate to each member's ability but sufficiently challenging to ensure improvement, such that every one understands the deliverables and their overall contribution to the team. Bell (1992) had defined team objectives as statements about what needs to be done, by whom, with whom, by when and to what standards of proficiency, and what should be done as a result. The fact that performance in relation to goals within a team is not solely dependent on team leaders but emanates principally from a school's systems for managing performance through development planning, appraisals and professional development reviews, is well documented (Middleton, 1997; Mac Gilchrist *et al.*, 1995; Poster and Poster, 1993; Olroyd and Hall, 1991). In this regard the ecological context for goal achievement in School A and School B were dissimilar.

[43] All section 4 tables cited in section 5 are compiled separately in Appendix E for reference.

In School A, leaders had not set individual key result areas in the form of performance reviews for two years and although goal related feedback took place in the course of day to day work within the teams it was *ad hoc* and incidental. As seen in Table 5.2, goal achievement was not part of the structure of leadership in the school. In the second academic year in School A (just before Meeting 3 recordings), line management meetings had begun between team leaders and members of the senior management team. These however had not percolated to such line management between middle managers and the members of the teams they managed. This means that there was a gap between the theory as seen in the literature and the practice of goal management as seen in the deployment of leadership by team leaders in School A.

In School B, where the professional development review system was well established, there did still exist a gap between planning and review as set down by school systems, and implementation of set objectives in leaders' actions. This was more the case in Team 4 than in Team 3. As could be seen in Table 5.2 above, the Team 3 leader was well apprised of long term team goals and each manager worked to those goals in their subject areas. The existence of 'job sheets' (month by month action plans) kept both leaders and members focussed on short term actions which fed into the School Improvement Plan. Management meetings were held with the eight individual team members during the duration of the research in School B and because these were shared between DS and BH they were less costly in time than would have been the case had TB in School A attempted to review the individual performance of all thirteen members of Team 1, School A. However, the picture was quite different in Team 4, School B. Although the set of meetings to review and plan performance was completed in the year of research in School B, two out of eight members complained about not having been returned the review form from which they were supposed to work, a fact compounded by the fact that neither the team leader (DJ) nor the senior manager in charge of staff development could locate a copy. This meant that the two team members worked oblivious of what their key results areas were. The fact that Team 4 meetings did not feature *ad hoc* references to goals as often as the other teams (Table 5.2), meant that practice of leadership with regards to goal achievement in Team 4 was a far cry from the picture painted in the literature. The fact that there was a drastic fall in the department's Key Stage Four and Five examination results at the

end of the research year, even though this is not necessarily directly attributable - in causation terms - to the status of goal achievement in Team 4, is worthy of mention.

Beare et al. (1997) have argued that the emphasis on leadership should be in transforming attitudes and cultures and not exclusively in transacting day to day operations towards the narrow aim of goal achievement. In proposing leadership as a systemic quality of an organisation, Ogawa and Bossert (1995) and Nash (1999) argue that because leadership within teams is embedded in relationships of mutual influencing, any member of a team could theoretically be leader at any given time. The four teams were looked at for the presence or absence of this 'systemic' exercise of leadership. There were no overt signs of devolvement of leadership from the team leaders to other members of the team. Members seemed to accept the positional authority of the team leader as an immutable matter of course. Visible manifestations of shared leadership such as chairing rotations or the encouragement of individual expertise within the team, were patently absent from the four teams.

Also significant, was the inexistence of overt challenges to the team leaders' status. Hall (1997) and O'Neill (1997) argued that conflict and its resolution was so inherent in team working that team relations could be defined by the nature of conflict, and by its management by leaders. This was not seen in any of the teams in this study. This non-recognition of conflict as essential to leaders' roles was especially surprising in Team 1 (School A) and Team 4 (School B), where the Interaction Process Analyses showed that amount of interactional disagreements was higher than elsewhere. The leaders of Teams 1 and 4 took decisions which were rarely openly challenged although admittedly, subsequent non action by team members could be interpreted as a form of covert challenge. CO's (Team 3, School B) statement here, is a case in point: All subject managers in Team 3 had been asked (Meeting 2) to implement a particular lesson structure format in their areas as part of the KS3 Strategy, CO, a subject manager, did not feel that this style of teaching particularly suited her subject area. She raised the point and said so. DS, the team leader, said it was possible to work something out and that whatever the case, all areas would need to work towards the specific lesson structure. CO conceded '... I am sure we can work something out...' Two school terms later nothing had happened in her faculty in this area. Asked in private, why that initiative had not taken hold in her area, this was her comment;

> "if management tells you that something will happen, ... I think they just feel it would happen just like that as if by magic... 'let there be light' and all that... you need to actually help people start off... there is also a question of time...things get buried under the pile".
>
> (CO, Team 3)

In School A, the Team 1 Leader accepted that conflict existed within the school but not within the team. Viewed by Bales' frames of reference (see Table 4.25)[44], and, with 13% of interactions indicating problems of integration, as well as a high 10% of interactions relating to tension management, Team 1 was most likely to have open conflict. Yet the existence and therefore the management of conflict was not acknowledged by the leader as being prevalent in her team. When asked how much time or energy they spent resolving conflict, 3 out of the 4 team leaders said they did not experience conflict:

> "This is a group of professionals, if we have an issue, I suppose we would talk it through and agree a line of action... so far thank God, we have not had any serious problems... we've got a good team here"
>
> DS (Team 3 leader)

The Team 4 leader (DJ) did not see conflict resolution as part of their role. She said that the last two times she had had occurrences of people wilfully neglecting their role or refusing to perform a task, she had referred the matter to the Head and had been 'largely satisfied' with the outcome but that on the whole conflict was not an issue in her team. As could be seen in Table 4.25[45], Team 4's propensity for having problems of control which were likely to affect decision making were on the high side.

What emerges from the discussion above is the fact that in the four teams observed in this study, team action and cooperation does not necessarily align with what the literature tells us about how teams should work and operate. Awareness of team goals is patchy and highly dependent normative power as a result of positional seniority. Procedures are not always made explicit and conflict is more likely to be swept under the carpet than discussed openly in meetings. In addition, with 3 out of 4 leaders in this study not fully apprised of what their team roles should entail, the emergent

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[44] See Appendix E
[45] See Appendix E

picture is one in which referring to the groups under study here as 'teams' brings to mind the position taken by Schmermehon *et al.,* (1995) and Huczynski and Buchanan (2001), who have claimed that managers use words like 'teams' as a rhetorical metaphor for their aspirations and as an enunciation of the way in which they would like formal groups to operate within their organizations. The depiction of the reality of team working in the schools in this study is more in line with this view.

5.3 What Tasks Identified the Groups as Teams?

Emerging from the key questions of the study, this section will look at how existing management literature defines team tasks and processes, and whether or not these were visible in the teams under study. The benefits of team working as suggested by team theorists will be matched against experience in the four teams to see if the principles proposed by theory are borne out by team practice. A detailed analysis of literature on team interdependence as a conceptualisation of team coordination will be used to describe how team behaviours align with or contradict the position taken by analysts.

In the literature, team theorists tended to see the essence of teamworking as being one of collective task performance and goal achievement (Bell, 1992; Bush and Middleton, 1997; Nash 1999). From *prima facie* evidence alone, it is possible to argue that the four teams in this study were at the very least, engaged in doing things as closely together as the autonomous nature of teaching could allow. As discussed in sections 4.1.2 and 4.2.2 (see Tables 4.3, 4.4, 4.15 and 4.16) all the four teams did perform some tasks together. Although most of the tasks were additive rather than conjunctive (Steiner and Rajarathnam, 1961), the fact was that team task objectives could not be achieved without the salient contribution of all the members working together. In the task domain therefore, teamworking in both schools was delivering zero sum dividends, achieving more than individuals could on their own (Bell 1992:121). In both schools, team members were expected to and were observed cooperating in the pursuance of joint tasks such as moderation (Team 2), book scrutiny (Team 3), training (Team 4) and organising a rota (Team 1). No instance of overt non-compliance to collective task completion was observed in the meetings although as seen with CO's situation (in section 5.2.3 above), the autonomous nature

of teaching is such that non compliance can take the form, described in the literature review (section 2.4), as toeing the official line in public while having enough freedom to do one's own thing in private (Wallace 2001).

In this study, the view of teams as collegial systems (Bell, 1995; Bush, 1995, Nash, 1999) characterised by cooperation, involvement, and effective two way communication, is confirmed to be no more than prescriptive advice for managers on how to build teams and make team working effective. The benefits of teamworking seen in the teams in this study was more patchy and less complete. Bell (1992), argued that the quantity of work which teachers were faced with as a result of the devolvement of power to schools by the Education Reform Act (1987), made cooperation within teams, in which goals and actions were negotiated and agreed, a matter of survival rather than just good practice; positing that team working had benefits which could be reaped when teams were managed effectively. From observing the four teams at work, this study looked at whether the four teams enjoyed these benefits from the tasks which they performed collectively and found (see Table 5.3 below) that although some 'teamworking dividends' were visible in most of the teams, there were areas in each of the teams in which such benefits were not visible to an observer. Table 5.3 constitutes a new operance of Bell's (1992:121) proposition on the subject and summarises which of the benefits of team working featured in the four teams and which did not.

	Team 1	Team 2	Team 3	Team 4
Agreeing aims	Yes	Yes	Yes	No
Clarifying roles	Yes	Yes	Yes	Yes
Sharing expertise and skills	Yes	Yes	Yes	Yes
Maximising the use of resources.	Yes	Yes	Yes	Yes
Motivating, encouraging, supporting members	No	No	Yes	No
Improving relationships	Yes	No	Yes	No
Encouraging decision making	No	No	Yes	No
Increasing participation	Yes	Yes	Yes	Yes
Realising individual potential	Yes	Yes	Yes	Yes
Improving (two way) communication	No	No	Yes	No
Increasing knowledge and understanding	Yes	Yes	Yes	Yes
Reducing stress and anxiety.	No	No	No	No

Table 5.3: Teamworking: visible benefits.

It emerged that at the team level, while the four teams enjoyed some of the advantages of sharing of knowledge, skills, expertise and the use of resources (in this case, time), there were areas such as reducing stress, improving two-way communication, improving relationships and encouraging collegial decision making where these benefits were not visible to the observer in most of the teams. This showed that propositions based on prescriptions such as Bell's, were ideals which were not necessarily borne out by practice within the four teams studied here. This was more the case when these benefits were looked at from the perspective of the individual within the team. For instance with regard to clarifying roles, overall data at the team level points to the fact that all four teams did benefit from working in that format. But as was discussed in section 5.2.3 above, not all individuals (hence the complaints by BE and EG in Team 4) felt that the team format had helped them clarify their roles in terms of goal achievement. Similar instances of gaps in individual versus team benefits could be seen in all those categories which registered a 'yes' in terms of the benefits of teamworking. If, as stated in the literature (Bell, 1992; Riches, 1997) the key benefit of working in a team resides in the achievement of more than individuals can achieve on their own, where do those individuals (such as BE and EG in Team 4) who are part of teams but who may not be benefiting from the team dividend feature? Could this be a manifestation of the unfair demands on teachers' goodwill unsupported by school structures which Sinclair (1992) describes as the tyranny of the team ideology? In setting down how teams coordinate their work to reap the zero sum benefits promised in team related literature, it becomes important that team working in the four teams in this study be analysed within the purview of the distinction between task and process, input and output, proposed as part of the conceptual assumptions of this study as discussed in section 1.

5.4 What Processes Identified the Groups as Teams? Interdependence in Schools A and B

Bell (1992) distinguished between team objectives, relating to the tasks which members were meant to perform from team procedures and processes which referred to the ways in which this collective work was done. Belbin (1993) has argued that what is important in team effectiveness is not members' functional roles i.e. the technical skills and operational knowledge which job applicants bring with them to

their organizations, but the multitude of ways in which it is possible for them to relate to others within their organizations. Ingram and Desombre, (1999) have argued that in order to understand how cohesive teamworking showed team identity, it was necessary to look at degrees of 'organised cooperation'. Van de Ven *et al.* (1976) defined team interdependence as describing situations in which team members collectively diagnose and solve problems and jointly complete tasks while retaining considerable freedom in the design and pursuance of their own jobs.

In the literature review (sections 2.4 and 2.5) Van der Vegt and Van der Vliert's (2001) model for diagnosing team interdependence was described as a conceptual framework for theoretical development and intervention from observing teams at work. Their diagnostic schema was adapted to analyse observational data from meetings in order to assess the degree to which team members were dependent on each other for goal achievement and how much organized co-operation could be judged from looking at team interaction. Table 5.4 below summarizes the findings in relation to the four teams in School A and B.

	Is there high within group heterogeneity with regard to task interdependence?	**Is there a high degree of task interdependence?**	**Is there a high degree of outcome interdependence?**	**Is there a high degree of job complexity?**
Team 1	No	No	Yes	Yes
Team 2	No	Yes	No	Yes
Team 3	No	No	Yes	Yes
Team 4	No	Yes	No	Yes

Table 5.4: Team interdependence based on an adaptation of Van der Vegt and Van der Vliert's (2001) Diagnostic Framework.

From looking at the contributions, role differentiation, task requirements and organizational factors affecting teamworking, Van der Vegt and Van der Vliert (2001) argued that the degree of cooperative work in a team could be judged by examining degrees of task and outcome interdependence. While task interdependence arose from individuals and their team sharing materials, information and expertise in order to achieve common goals, outcome interdependence described those activities which promoted 'groupthink' (Ingram, 1996), presented group goals or provided group feedback in the form of rewards and collective target setting. Van der Vegt and Van der Vliert (2001) posit that task and outcome interdependence are mutually

independent constructs, meaning that it is possible for the one to exist in a team, without the other. In this study, this did not seem to be the case in both Schools A and B. Looking at Table 5.4 above, what tended to happen was that, given the relative homogeneity of the tasks to be performed by members within each of the four teams, the teams with higher task interdependence (Teams 2 and 4) tended to exhibit low outcome interdependence. Conversely, the teams with lower task interdependence (Teams 1 and 3), tended to multiply opportunities for outcome interdependence. What this means is that Teams 2 and 4, which were good at performing tasks together appeared weak at giving rewards and conducting performance feedback while Teams 1 and 3 which were not very good at cooperating in task completion appeared to be very good at performance feedback. Team 3 especially spent more time than the other three, referring to its main goals and evaluating progress towards small goals. It also totted up the highest incidence of praise from leader to team. Whether this was causal or not was not established in this study.

5.4.1 Task Interdependence in Schools A and B

From an opportunity sample of four (one third of the team) Team 1 members[46] spoken to, three (SD, BKN, DBE) said they were clear about the tasks which team members did collectively (see Table 4.3). The fact that JN was unable to enunciate half of the tasks which the team performed together two terms into the year could have been indicative of her newness to the team, but also of her lack of familiarity with the nature of the tasks which individual members performed. As discussed in section 4.1.2 (Data Analysis), most if not all of Team 1 tasks were additive in nature, in the sense that members did similar jobs in relative independence of their forms. It was the sum total of their individual outputs which constituted team output. A similar sample of members of each team was asked to name the type of tasks which they could not perform without each other. The responses showed that in Team 2 and Team 4 (these were the 'teaching' teams), members could easily identify tasks such as training and moderation as being impossible without collective input. However, while all three of the Team 3 sample could identify training, only one other member mentioned

[46] JN was new to the school and new to her functional role within the team, SD was a leader of another team but new to his role within the team, BKN was not new to his role within the team but was new to his positional role as assistant Year Head and DBE, being the longest serving member of the team, had been in her roles both as member of Team 1, and team leader of another team for many years.

decision making as a task which they performed as a team. Observational evidence of Team 3 meetings showed only one instance of joint decision making happening within the meetings. The four members sampled in Team 1 named 'talking' as the only thing they did together, with NE saying that it was 'more like being talked at than talking'. This shows that there was higher task interdependence in Teams 2 and 4 than in Teams 1 and 3.

Van der Vegt and Van de Vliert (2001) have suggested that the degree of task interdependence increases with the complexity of the tasks to be performed. The nature of the tasks performed by all four teams in both schools notably; training, deciding policy, moderating etc (tables 4.3; 4.4; 4.15 and 4.16 in Section 4)[47] were complex and sometimes difficult. As established above, the highest degree of team task interdependence (i.e. intradependence) was seen in Teams 2 (School A) and 4 (School B) which were both subject departments, and where tasks such as moderating and scrutinizing pupil's work entailed a high degree of reliance on all of the members' skills and experience to arrive at a line of action for practice in the classroom. This part of the evidence validates Van der Vegt and Van de Vliert's (2001) position.

How then do we explain the fact that while Teams 1 and 3's tasks were equally as complex, the only evidence of within-team task interdependence (i.e. intradependence) in Teams 1 and 3 was so low? In Team 1 the only incidence of intradependence was seen when one team member (NN) asked another (BKN) for help with understanding how the new referral system, was supposed to be implemented. The joint form filling which ensued could be interpreted as an instance of intradependence between members of the team. In Team 3 (School B), overt manifestations of within-team task interdependence in the three meetings observed, were infrequent. Even when members were asked to scrutinize pupils' work in groups of three, what happened in fact was that the groups split the books between themselves and then proceeded to scrutinize them individually. The feedback on the task was done individually. The difficulty in finding instances of task interdependence in Team 3 was in part due to its mandate. As a curriculum development group, its role was to apprise itself of developments in the KS3 Strategy, with the view to each

[47] See Appendix E

individual member managing its implementation in their respective Faculties. Although it was possible to interpret occurrences of sharing good practice between members of different Faculties as intradependence (i.e. within-team task interdependence), this was not seen in any of the meetings in Team 3.

A countervailing argument to Van der Vegt and Van der Vliert's (to wit; that task and outcome interdependence are mutually independent constructs (2001)) exists in research. According to Savedra *et al.* (1993) and Jehn (1995), when teams enjoy high degrees of task interdependence, goal reinforcement increases members' feelings of identification with the group. Goal reinforcement and feelings of identification with the group are ideationally contiguous to outcome interdependence (described above as actions which present group goals or provide group feedback in the form of rewards and involve collective target setting (Van der Vegt and Van de Vliert, 2001)). What Savedra *et al.,* (1993); and Jehn, (1995) appear to be saying is not that task and outcome independence are mutually independent constructs as Van der Vegt and Van de Vliert (2001) claim, but quite the reverse; that they are somehow interrelated. Why then did members of Teams 2 and 4 (the two highly task interdependent teams) not enjoy feelings of identification with the group? How can we explain the fact that Teams 1 and 3 which were weak in task interdependence, were the ones with all the indicators of strong goal reinforcement and high outcome interdependence?

Part of the explanation may lie in the circumstances of the teams themselves. In the case of in Team 3 (School B) members saw themselves primarily as representatives of other teams which meant that they did not also see themselves as members of Team 3 to begin with. As can be seen from the role mutation of DBE, TB (School A), BE, and BH (School B), team members were aware of their differing roles within these different teams, suggesting that the nature of their identification to the team was not necessarily bound to the degree of task interdependence within the teams themselves but with other factors such as their functional roles which placed then in particular teams to start with.

5.4.2 Outcome Interdependence in Schools A and B

Outcome interdependence is two-pronged. It relates to the communication and promotion of goals and rewards. Group goals refer to the level of performance to be achieved collectively while group feedback refers to information on the state of the group relative to a reference value or standard (Van der Vegt and Van der Vliert, 2001). Weldon and Weingart (1993) have argued that the prevalence of group reward and group feedback relate positively to outcome interdependence in the form of affective responses on the part of individual group members; for example if team goals are clear and feedback is positive, members are satisfied and motivated to achieve (Pritchard et al, 1988).

Observations of team meetings showed that to varying degrees, action in the four teams was driven by the goals that the teams had formulated and published in the form of development/improvement plans with which members were familiar to varying degrees (see section 5.2.1 above). As shown in Table 5.2 above, *ad hoc* goal sharing within meetings was the single most common form of team maintenance action taken by team leaders to influence the way in which individual members related to the team. In fact, in two out of the four teams in the study, goals were referred to and discussed in two out of three meetings observed, with Team 3 discussing and taking direct action to enact team goals in all of the three meetings observed. While it is possible to argue that, an awareness of low task interdependence between Team 3 members could have been perceived by the Team 3 leader and this could have increased her need for constant goal reinforcement within the team, it was more likely that the relative youth of Team 3 (this was its first year of operational existence, barely a year after this aspect of structural change in School B was staffed) accounted for the prevalence of goal reinforcement as a feature of the 'norming' (Tuckman, 1965) stage in its team development cycle. Team 3 rewards took the form of thanks (a form of mental feedback) and supportive encouragement by the team leader (DS). In terms of team interdependence by outcome relating to goals, School B had both the strongest (Team 3) and the weakest (Team 4) teams.

In School A, team feedback was found to be strongest in Team 1 and weakest in Team 2. The three Team 1 meetings observed showed that feedback by individual

members of both their successes and failures in dealing the particular attendance and pastoral problems of pupils in form groups, was a feature in all the meetings. The weekly publication of attendance figures in School A, allowed members to have a clear knowledge of the effects of their actions. In all, there were twenty two utterances in Team 1 which could be interpreted as feedback (based on the following eight categories: positive, developmental, negative, zero, physical, mental, conditional and unconditional (Nash 1999)) related to standards or values. Of these, thirteen were comments made both by the team leader (TB) and her assistant (BKN) either to individual members or to the team as a whole, for various reasons. The evidence in this study begins to point to the importance of leadership in the existence of outcome interdependence.

In Team 2 (where outcome interdependence was weak), comments interpretable as feedback were rare (4 in all). These tended to be of the '...could do better' developmental type or of the zero feedback type. For instance, although performance data had been published in the school just before Meeting 2 which showed Team 2 to have been very successful in one of the three subjects taught in the department, this was not mentioned even though the published minutes of two other departments in the school showed that time had been dedicated to discussing results data. DBE (Team 2 leader) was not asked why this was so, mostly because it was common knowledge within the department that DBE and GEF 'did not get on' and to have discussed the results would have meant acknowledging GEF's success as a subject leader on the record (Diary Entry, Meeting 1 Team 1, January 2002). This is significant because here was an instance wherein an opportunity for team feedback and reward, and therefore outcome interdependence, was lost to tense relations between the leader and team members. Again the role of the leader was crucial.

In Team 4 (where evidence of outcome interdependence was also weak), goal performance feedback occurred just the once (during Meeting 1) and consisted of examinations results feedback. Again although the School data indicated positive value-added, a lot of the discussion centred on the absence of a standard against which teacher assessments could be pegged. The team leader (DJ) dwelled on the fact that high teacher value-added residuals had resulted not so much from good teaching performance, as from an overly generous levelling of pupils' work by teachers. This

led to defensive rebuttals by two of the team members (EG and BE) who had high residuals. The effect of the angle from which DJ had broached the subject thus threatened the integrative potential of the discussion and weakened the likelihood of team satisfaction resulting from this instance of outcome interdependence. In terms of team reward, Team 4 was the only one of the four teams in the study, which socialised outside school. This took the form of meals out. In the one year during which team meeting observations were made, there were three such outings. This is an oddity particularly when juxtaposed to the high prevalence in Team 4 of tense relations during team meetings. Whether this could be seen as covert teambuilding was not established in this study. The fact that this socialisation could have the effect of outcome interdependence (i.e. increasing members' feelings of satisfaction with the team) is, nevertheless, worthy of mention.

The picture being painted in both schools is one in which the degree of outcome interdependence in the form of goal clarification was strong in all but one team (Team 4). However, outcome interdependence in the form of feedback and praise was not strong in two (Team 2 and 4) out of the four teams. The positions taken in Pritchard (1988), Weldon and Weingart (1993) and Van der Vegt and Van der Vliert, (2001) is that the prevalence of group reward and group feedback relate positively to outcome interdependence in the form of affective responses on the part of individual group members. While this stands *modus tolens*[48] with Teams 2 and 4, (i.e. they did not have strong group rewards and feedback and therefore they did not have good outcome interdependence), this cannot be the case for Team 3 who had strong outcome interdependence but poor individual team member identification with the team. In fact, from what could be observed of the four teams, it seemed more likely for any sense of team identity to emerge from task interdependence in both schools than from outcome interdependence as stated in the literature.

What emerges from the above is that the skill level of team leaders appeared to have played a major role in the relationship between task and outcome interdependence within teams on the one hand, and the contribution of group rewards and group feedback to outcome interdependence on the other. What the evidence in this study

[48] If the consequent is denied then the antecedent is denied.

suggests is a refinement away from *whether* task and outcome independence affect each other, to *how* they do so. The evidence in this study points to team role awareness, the quality of team leadership and task interdependence as determinants of outcome interdependence in three different ways depending on the circumstances of the team under discussion:

- When teams are task interdependent (as in Team 2 and 4) and members are unaware or dismissive of their team roles and leadership is defective, then outcome interdependence is difficult.
- When task interdependence is low but leadership is strong, even when members are dismissive or unaware of their team roles, it is possible to have outcome interdependence (as in Teams 1 and 3).

Data from the Belbin SPIs, the interactional data and members' own statements make it clear that none of the four teams in this study unified all the characteristics which could make them ideally interdependent. It follows - taking into account the situation of the four teams – that there is logical scope in proposing the ideal to be that

- When teams are task interdependent and their members are aware of their team roles (over and above their functional roles), this leads to high outcome interdependence if team leadership is strong.

The causes of member identification with the team could not reasonably be established by interactional observation alone and therefore the links between interdependence and members' identification and satisfaction with the team was not pursued beyond what was directly observable.

If, as discussed in sections 2.4 and 5.4 above, teamworking is a way of working (Ingram, 1996:8; Ingram and Desombre, 1999) which depicts particular team processes (Bell, 1992; Teare et al, 1996; Tranfield *et al*, 1988) which show degrees of organised cooperation (Ingram and Desombre, 1999) and interdependence (Van der Ven *et al.*, 1976) of which task and outcome interdependence (Van der Vegt and Vander Vliert, 2001) are part, then it can be asserted that effective teamworking as a *modus operandus*, did not exist in the contexts studied for this research.

5.5 How did Team Members Interact?

In this section, the key question relating to the nature of team interaction is scrutinised in the light of Bales' (1950) conceptualisation of how observable patterns of individual behaviour within small groups can be used to describe the quality of team interactions and the potential problems which teams may face. This study highlights the apparent inability of Bales' Interaction Process Analysis to pinpoint which of the four teams in the study experienced the greatest degree of tension management problems. As a result, this section compares tension management data from the findings to existing literature on conflict recognition and resolution, to paint a picture of how conflict was handled in the four teams. What emerged was a gap between what management literature advises should happen, and what actually happened in the four teams.

Bales' (1950) model for analysing group interaction was used to process how team members related to each other. Bales stated that it was possible to extract indices of group behaviour as well as the factors which influenced group processes from analysing observable behaviours in small groups in face to face interactions. In this study, the twelve categories abstracted by Bales as a system for classifying group behaviour (the interaction process analysis) was used as a template for analysing team interactions. The range of psychological acts (instances of verbal and non verbal behaviours) contained in the IPAs was found to be comprehensive enough to account for all the types of behaviour observable in the meetings in both Schools A and B. Although an attempt was made at seeking types of behaviours not accounted for by Bales' IPA, none could be found.

Bales (1950) proposed that by classifying behaviour by positive and negative (task and socio-emotional) acts, it was possible to identify the types of problems which groups experienced, with a view to problem solving. Linked to specific categories of interaction, were the so called 'frames of reference' (Bales, 1950) to wit orientation, evaluation, control, decision making, tension management and integration (see Appendix A). These were used to analyse the potential problems of the teams on the basis of Bales' (1950) argument that the uniformity of psychological acts made by members in a group could be grouped together to form a comprehensive theory, such

that departures from the average behaviour could be seen as indicating the quality, nature or condition of group interaction. Bales' frames of reference were largely able to accurately predict the potential problems of the four teams, in five of the six frames. The exception was in the area of conflict and tension management where analyses of team interactional output indexed an almost identical propensity for problems of tension management (see Table 5.5 below, extracted from Table 4.25 in Appendix E) in all four teams, whereas it was patent to the observer that this was not the case in fact.

Frame of Reference	Team 1	Team 2	Team 3	Team 4
Problems of Tension Management	10%	9%	10%	10%

Table 5.5: The comparative potential for conflict Teams 1-4

5.6 Conflict/Tension Management in Schools A and B

The analysis of the frames of reference (Table 5.5 above) showed that there could be more problems with tension management in School B than in School A, and that within School A, Team 1 was worse than Team 2. The reality was quite the reverse. The potential for conflict was in fact higher in School A than in School B (with interactions in Team 2 being more tense than those in Team 1). In School B, although the percentages of interactions indexing conflict were the same, the reality was that the nature of Team 3's disagreements were of the sort that could be and were sometimes discussed openly in meetings (time, delegated activities, approaches to strategy dissemination etc) whereas in Team 4, disagreements tended to be not completely verbally voiced, and were accompanied by manifestations of covert personal attacks on account of members' frustrations with not having issues dealt with promptly or properly. The inability of Bales' (1950) Frames of Reference to accurately identify the potential for problems of tension management, could reside in the requirement for psychological acts to be manifest (i.e. readily observable) where the reality was that manifestations of tensions were latent and or deployed outside the team domain (as in the five minute interviews with team members). Another possible reason could be that the 'whipping' style of turn allocation in Teams 2 and 4 could have had the effect of minimising the visibility of tensions within the two teams. The fact that the frames of reference indexed problems of control as being a high 17% (see

Table 4.25 in Appendix E) in Team 2, for instance, begins to show some of the pressures under which the Team 2 leader operated. The contrastingly low (14%) reading in problems of control in Team 1, (Table 4.2.5) supports the argument that tension management was, at least, less of a problem in Team 1 than in Team 2.

According to Walton (1987), interactive conflict is substantive to team interactions, and consists of disagreements which lead to the disruption of interdependence and team self management. The IPAs showed that in three out of four teams (the exception was Team 3 School B), conflict was endemic in the nature of interactions, not only between members of the team, but between team members and team leaders. In all the four teams, constructive conflict, i.e. tensions over resources, technology and time, were seen as 'practical problems'. These were acknowledged and generally acted upon outside the team context. However, with respect to destructive conflict which was most likely to disrupt interdependence, the behaviour observed in three of the four teams showed that when disagreements over policies or their implementation were voiced they remained unacknowledged, ignored or glossed over by team leaders and other members in the team, such as when the Team 4 (DJ) leader moved to the next item (see section 5.2.3) or when TB baled out DBE (Team 2 leader) at sticky points in meetings (see section 5.2.2). This is in line with the picture painted in school related research (Harrison *et al.,* 1995; O'Neill, 1997) of how conflict is in fact managed within some school teams.

What was peculiar in the three team leaders whose team interaction showed obvious conflict was their inability or unwillingness to see the disharmony in their teams' interactions. Leaders of Teams 1, 2 and 4 were convinced of the fact that their teams were conflict free, as could be seen from these utterances:

> 'it may look like we are screaming at each other in here... I think it is the mix of personalities in this team... they're nutters...'
>
> (TB, Leader Team 1)

> 'we hardly disagree over what to do here... it is in doing it... you find that some do more than others... I don't think that it is because they don't agree...some people are more efficient than others...'
>
> (DBE, Leader, Team 2)

> 'you know how we work here... it is not in my nature to force things through... when you don't put pressure on people they come along with you...'
>
> (DJ, Leader, Team 4)

There was both verbal and non verbal evidence in each of the meetings of a gap between leaders' and team members' recognition of the existence of problems. These were voiced in the form of 'whinges' about team leaders outside the team domain. One normally affable team member (KL, Team 2) said of the team leader:

> '... think of a ball and very long grass ... that's how we deal with problems here...what's the point [of fighting]?'

The emerging picture was one which showed that the prescriptive advice of conflict theorists to wit; that conflicts be openly thrashed through dialogue and negotiation (Walton, 1987; Adair, 1988; Bell, 1992; O'Neill, 1997) had yet to percolate into the inner reaches of team working within these three teams. On the contrary, because conflict was not acknowledged by the team leaders who had the power and the set up to do something about it, effective team working was allowed to suffer on account of team members' unmet team maintenance needs. Some of the reasons why the teams were still able to interact interdependently can be found in environmental factors such as in the ways in which both schools are structured.

5.7 How did Organizational Factors (Structure, Culture and Politics) Affect Teamworking?

Following the assumptions made in section 1.2 of organizations being open systems, (Hanna, 1988) any account of teamworking which views the process as a stand-alone construct is bound to be incomplete. In section 2.4, Recardo and Jolly (1997) posit that the absence of a culture-fit dooms teamworking initiatives to failure because the reality is that organizations tend to operate hierarchically. Buchanan and Huczynski (2001) suggest that teams tend to be embedded in, and thus influenced by the organisations of which they are part. The resulting relationship is that of external

work team integration, and this affects relationships within teams. In this study, this was made evident by the frequency with which residual factors external to the team itself, offered themselves as explanations to patterns of behaviour within the four teams. The relevant aspects of Sundstrom et al.'s (1990) frame work for the ecological analysis of relations astride and outside team boundaries (viz; culture, task design and technology, mission clarity and consultation, the physical environment, autonomy, performance feedback, rewards and recognition, training and consultation (see section 2.5)) was used to describe the two research contexts of this study. This was because the framework provided a comprehensive outside-in account of the factors which explained why teams in both schools behaved in certain ways.

Organizational Contexts	**School A**	**School B**
Organizational Culture	Predominantly integrative. Subcultures existed	A combination of integrative and differentiated cultures
Task Design	Individuals in loosely coupled Departments	Individuals in more tightly coupled Faculties
Autonomy	Teacher autonomy very high	Teacher autonomy very high
Performance Feedback	Predominantly given to teams. No formal forms of individual performance feedback	Predominantly given to individuals. Team feedback available but not accorded equal importance
Rewards and Recognition	Predominantly to individuals	Predominantly to individuals. Used politically
Training and Consultation	Focussed around individual development. Group training not well developed	Predominantly whole school focussed. Group development well developed and linked to the School Improvement Plan.
Physical Environment	Single site facilitates communication, also informal communication between staff. Aggregation is easy	Twin sites 1 mile apart. Imposes physical impediments to communication. Aggregation is fractious and predominantly planned

Table 5.6: Comparing Ecological Factors Affecting Teamworking in Schools A and B. (Adapted form Sundstrom *et al.*, 1990:122)

Table 5.6 above paints a comparative picture of the contexts within which teamworking in the two schools was embedded, from which it was possible to evince a description of the cultures of the two schools.

In terms of structure, what emerged was that although both schools were professional bureaucracies with two parallel hierarchies whose overall structure fitted with Minzberg's schema (1993) of organisational structure, there were clear differences in

the way the middle belt within both schools operated. Because in both cases the form of co-ordination between teams and between individuals within teams was loosely coupled (Weick, 1976), it allowed room for individual and team self-determination. This possibility for teacher autonomy meant that in both schools decisions or actions taken within the team domain had only a limited impact on the actual behaviours of individuals within those teams, since individuals could choose to comply to or ignore team imperatives in the relative privacy of their classrooms. In addition, both schools operated a matrix (i.e. teachers tended to belong to more than one team) structure, and this diffused accountability between two structures; the pastoral and the departmental (Fidler, 1990). At middle management levels in both schools, an attempt had been made to address coordination between the pastoral and the academic structures (in the form of HoDs/HoY[49] meetings in School A and CLT[50] meetings in School B). However, because membership amounted to up to twenty, the groups were unwieldy, heterogeneous and inefficient in interdependence terms. This is because while they allowed for communication with the centre (i.e. with senior management), they did not always lead to collaboration between individual middle managers. Moreover, meetings were too infrequent for these groups to be more than information dissemination arenas. This means that the onus for leadership in goal implementation and achievement of individual team members was left to team leaders whose management of team working (as discussed in sections 5.4, 5.5 and 5.6) was not necessarily as effective as it could be. This had different consequences for both schools.

In School A, the effect of structural loose coupling (Weick, 1976) was the emergence of distinct subcultures between teams, which was counterbalanced by a strong inclination by senior management to operate a centralized culture (Peters and Waterman, 1982) by overtly seeking to influence and direct what happened within teams. This led to the development of highly political intra-team subcultures, where challenge to the powers that be was the norm rather than the exception. Although the Team 1 and Team 2 leaders were loathe to admit it, the fact was that School A's team members' behaviours alternated between covert resistance (such as stalling and

[49] Heads of Departments and Heads of Year, later renamed CMT (Central Management Team).
[50] Core Leadership Team.

undermining) and overt support (active endorsements of team leaders' actions (Bovey and Hede, 2001)). This politicized team relations.

In School B the effect of loose coupling within the organization, had a slightly different effect. With individual team members travelling between sites during the school day, teams enjoyed almost none of the benefits accruing from aggregation - a dividend of members working in close physical proximity. Senior management's desire for influencing outcomes at the middle belt of the organization was structurally provided for in the creation of the Key Stage 3 co-ordinators team (Team 3), and in the creation of a Core Leadership Team which grouped both Heads of Faculties and Heads of Years. The result was that although Team 3 showed a highly integrated culture on account of the degree of Senior Management control within it, Team 4 was left free to develop its own distinct culture. This explains why in Team 4's interactions, members' attitudes to collaboration, team norms and consensus (Nias *et al.,* 1989) were more visible in the team domain. In Team 3, both support and resistance to collective goals were overt but passive. Members tended to agree and accept or observe and refrain (Bovey and Hede, 2001) - a factor which may explain the apparent harmony of interaction within the team. Conversely, in Team 4, individual support for or resistance to team goals were expressed in the form of arguments for, or (unacknowledged and unresolved) obstructions and challenging questions. Combined with the disinclination of the Team 4 leader to deploy positional power, problems of control within Team 4 resulted in fractured team collaboration which undermined teamworking. The effect of the organization on team working in School B was therefore not uniform.

What emerges from this analysis of the contexts of teamworking within the schools in this study, is a picture of teams which were more influenced by the school's structure and politics than either team members or their leaders were prepared to admit. While all the four team leaders professed their ultimate control of the destiny of their teams in terms of their influence over its goals, maintenance and development, the fact is that environmental factors either frustrated their efforts or supported them, depending on the particular instance. While this is in line with the position taken by 'ecological' team theorists (such as Sundstrom *et al.,* 1990; Ingram and Desombre, 1999; and Huczynski and Buchanan, 2001), the extent of the effect of the wider context on team

working appears to contradict the assumptions of 'teamcentric' writers (such as Bell, 1992; Belbin, 1996; and Bush, 1997; O'Neill, 1997), who advocate that the fate of team development, goal achievement and harmonious teamworking reside largely within the power of team members and their leaders.

5.8 Conclusion

The bulk of existing literature and conceptual frameworks on teamworking discussed in this study, fall within the socio technical paradigm. This means that the conceptualisations were conceived with intervention in mind and therefore tended to be prescriptive and aspirational in tone. This has led to an inclination for the focus of analysis here, to consist principally in examining whether the principles, characteristics and qualities of teamworking have been borne out when the working teams in real school contexts are ethnographically examined. It has emerged from this research that team role awareness was incidental both to team members' and leaders' behaviour in meetings and did not often coincide with self-perceived role types. Although expected by the school structure to work in teams, teachers were not explicitly taught the team roles to inhabit and whether or not teachers mismatched their team role types was not significant to them. Because, functional roles were the only significant basis for action, active team role learning was almost non existent. This was not in line with existing literature on team roles.

With regards to team interaction, the proposition in team literature that the collegial operation of teamwork would enable systemic or diffused leadership was not verified since the quality and quantity of communication within the teams roughly followed patterns of seniority and status. Although teams collaborated in the completion of tasks, the deployment of leadership in key aspects of vision making, goal management and team maintenance were problematic in three out of the four teams. The fact was that leaders, seen as being primarily accountable for the success or failure of their teams, did not make an attempt to devolve leadership within the team.

Task and outcome interdependence as manifestations of collaborative team coordination was evaluated on the basis of existing literature. Task interdependence

was found to be well developed in two out of four teams (and existing, but weak in a third team). Aspects of outcome interdependence, for its part, were problematic in all the four teams in the study. Given that some researchers posit that task and outcome interdependence are mutually independent, this finding was not surprising. What was, was the fact that the teams in this study which displayed low task interdependence (i.e. those which did not actively share technical expertise and resources in joint work) demonstrated high outcome interdependence (i.e. they multiplied opportunities for goal reinforcement, rewards and performance feedback information). Similarly, those teams which enjoyed high task interdependence, tended to squander opportunities for outcome interdependence. As this was across two different contexts, this finding provides circumstantial evidence which can be used to challenge the assumption of mutual independence between the task and outcome interdependence. In addition, none of the teams in this study displayed the extents of interdependence warranting them to be described as effectively 'teamworked' units. In this respect, the skills of the team leader in the management of aspects interdependence emerged as a key factor in determining the success of team working.

Team interaction pointed to conflicts which were not necessarily taken on board by leaders whose espoused theories conflicted with their theories in action. This was at odds with prescriptive literature on conflict management and resolution. The fact that Bales' (1950) frames of reference for problem solving were unable to flag up problems of tension management attests to the difficulties in managing conflict if leaders decide not to recognise or acknowledge its existence.

Although the two schools under study were very dissimilar in circumstances, there were more similarities than differences in the dysfunctionalities prevalent in their observed teamworking practices. None of the teams observed in this study fitted with all of the salient features of 'team' taxonomy as featured in existing literature. This may be attributable to the nature of teaching wherein what is achieved within the team domain only tangentially affects the bulk of individual behaviour, as these are deployed outside collective environments, in the relative isolation of departments and classrooms. Factors in the specific organizational contexts of both schools also contributed in frustrating effective teamworking such as described and prescribed in School Management literature. How, for instance, could teachers be expected to value

teamwork when the most significant forms of institutional rewards (performance related pay, promotion, challenge and accountability) meted out in schools targeted the individual and not the team? With the need for teamworking being increasingly seen as a necessity for organizational survival given the current pressures on schools' time and resources, the case for explicit team awareness education of teachers is strongly advocated to harness collective energies, in order to increase the contribution of teams to school effectiveness.

Section 6

CONCLUSION

The management environment within schools changed markedly when the Education Reform Act (1987), devolving the power for the management of resources to schools themselves, began to take effect in schools. The pressure to change systems, structures and outcomes such that devolved scarce resources were guaranteed optimum use, led to a comprehensive rethinking of the use of resources within schools not least amongst which, in the management of people. Premised on the reputed success of collegial models in the corporate environment, educational management literature became awash with prescriptive advice to school managers, on strategies for building and operating collegial and cooperative ways of working as an ethically responsible and rationally sound response to the competing pressures of school improvement and increased workload resulting from an increased need for internal and external accountability.

6.1 Summary of the Research

This study begins at a point when school managers' acceptance of the merits of team working is seen as the norm, and where the collegial approach is no longer contested. With the team format now built into school structures and cultures, this study examines how teams operate in fact, and seeks to reconcile the reality of teamworking within schools, with the picture painted by literature in the field. This study looked at how four middle belt teams worked in two secondary comprehensives over periods of one year each. Belbin's Self-Perception Questionnaire was given to every team member such that team role type could be established as a starting point for scrutinizing the network of relationships within teams. Three meetings per team were then observed and video recorded, to establish whether members' actions in meetings matched their self-perceived role types. Team members' behaviours in meetings were then analysed using Bales' Interaction Process Analysis, in order to give an account of how team roles were deployed in action and how members cooperated and dealt with team objectives, tasks and processes. Unstructured interviews which comprised

teachers' explanations of their behaviour were collected in the form of field notes. The study found that

- Teachers' perceptions of their team roles did not always match their actions in interactions during meetings. They considered functional role as being more significant in the way in which they interacted with others in the team. Role type matches when they occurred were incidental. Role learning rarely occurred and therefore the possibility for change was small
- Team interactions were strongly influenced by members with positions of seniority both in terms of quantity of turns and in the quality and influence of their contributions. Ordinary members with little positional status either complied or deployed strategies to avoid compliance
- Team members rarely manifested non compliance in the public domain but attested to the existence of conflicts within the team. When disagreements arose, the majority responded by inaction. The existence of conflicts was rarely acknowledged by team leaders and therefore conflicts were left unresolved
- Team members were able to cooperate on completing discrete tasks when required but leaders' management of outcome interdependence in the form of performance feedback was problematic.
- Team leaders' insufficient grasp of vision making, goal management and team maintenance led to varying degrees of ineffective (outcome and task) interdependence. This led to poor team working.
- Factors in the schools' environment impeded effective team working. This was not recognised by team leaders and therefore countervailing team maintenance action was not taken.

6.2 How important is 'team role' in schools?

One of Belbin's main findings on completing the Management Game was the tendency for individuals working in a team to take on

> [...] particular roles with the pattern of role balance exercising a crucial effect on the outcome. Teams of people would not necessarily produce favourable results

since the balance might be wrong.

(1993:20)

This was partially confirmed in the research to the extent that Team 3 (School B) which appeared to have the highest degree of role type balance also appeared to be the most teamworked of the all the four teams in the study. However, the effect of role type balance on the effectiveness of team working could not be verified on account of the fact that Team 3 had not been put together on the basis of the role types of its members. This means that the relationship between Team 3's apparent role balance and its higher teamworking effectiveness could be coincidental. The reality in schools is that, as was the case with all the four teams in this study, the factors of agency of teams are mainly functional (subject knowledge or managerial ability) or contingent (availability, opportunity, politics). It follows that the 'dysfunctionalities' of Teams 1, 2 and 4 which did not enjoy *a priori* role balance are more directly attributable to functional and contingent factors than to the absence of role type balance in the teams' composition.

Overall, there were more people who matched their role types than mismatched in their actions during meetings. However, the existence of mismatches in a significant minority of the team members and the feedback from members whose role types matched their behaviour in meetings, showed that this match did not necessarily translate into a conscious awareness of role type, leading to the 'tendency to behave, contribute and interrelate...in certain distinctive ways' (Belbin, 1993:24). The argument by Belbin (1993:57) that interpersonal chemistry predicated on role types could determine team relations could only be verified in he case of two participants in this study (DS and BH in Team 3). It was difficult to proceed from self-perceived role types to a reliable diagnosis of relationships because members could mismatch the role type which they initially declared. This was an example of conflict between self-perception and perception by others.

The research showed only one case of a conscious effort towards role learning. In action, the higher recognition of and readiness for task over outcome interdependence indicated that research participants were more cognisant of functional roles than of team roles. The observable fact was that team role types and their potential combinations did not have any conscious relevance to the way in which team

members of both schools behaved or interacted on a daily basis. Evidence from the research therefore challenged some of Belbin's key assertions.

6.3 How well do school teams 'teamwork'?

If as Huczynski and Buchanan (2001) have stated, teams are psychological groups made up of members in face to face interaction, wherein each member is aware of others who belong in the group, with each aware of their positive interdependence as they strive to achieve mutual goals, then the four groups in this study, were teams. They called themselves such and were expected by senior managers to work in a team structure. As a social/structural construct all the teams differentially exhibited team characteristics such as membership, shared communication networks, collective identity, shared goals and group structure (Johnson and Johnson, 1991). However, when interdependence as a manifestation of intersubjective collaboration and coordination within teams (Van der Vegt and Van der Vliert; 2001), was scrutinized, the evidence pointed to gaps between what should happen and what did happen. This means that teamworking, interpreted as a disciplined and focussed way of working (Ingram 1996), i.e. as a process or *modus operandus,* was problematic in all the four teams.

The degree of teamworking observed in the four teams of the study revealed problems - not in terms of the existence or not of 'team' characteristics in the four teams in Schools A and B, but in terms of quality and effectiveness. Describing teamwork as cooperation on the basis of shared perception, a common purpose, agreed procedures, commitment, cooperation and the open resolution of disagreements, Bell (1992) warns that teamworking does not happen automatically as it needs to be managed, if it is to be effective. Constructed around Bell's (1992) teamworking mandate, Table 6.1 summarises the aspects in the teamworking mandate which were observed to be problematic for the four teams.

Teamworking Area	SCHOOL A		SCHOOL A	
	Team 1	Team 2	Team 3	Team
Shared Perceptions	Problematic. Perceptions varied. Leader's vision not often shared with team.	Problematic. The three most influential members in the team had different views about how the team should be managed. This led to conflict.	Yes. Leader's vision shared often. Team united around the vision.	Problematic. Leader's vision was never enunciated. Perceptions varied. This led to conflict.
A Common Purpose	Yes. In terms of team objectives, but some members unaware of team objectives. None of the members had been set formal individual objectives.	Yes. In terms of team objectives, but none of the members had been set individual formal objectives. The enactment of team goals could not be verified.	Yes. Group and individual objectives were drawn up. Each member knew what they had to do on a monthly basis.	Yes. Team objectives existed but were not known to some members. All members had been set formal individual objectives. Some claimed to have forgotten these. Enactment of team goals in classroom could not be verified.
Agreed Procedures	Procedures existed but were tacit rather than explicitly agreed.	Procedures existed. Leader enforced them and team members complied.	Procedures existed but were tacit rather than explicit. Team members complied.	Procedures existed but were not made explicit or enforced. Difficulties with turn taking highlighted difficulties with tacit procedures.
Commitment	Could not be observed, measured or assessed.	Could not be observed, measured or assessed.	Could not be observed, measured or assessed.	Could not be observed, measured or assessed.
Cooperation	Problematic. Task interdependence was low but outcome interdependence was high.	Problematic. Task interdependence was high but outcome interdependence was low.	Problematic. Task interdependence was low but outcome interdependence was high.	Problematic. Task interdependence was high but outcome interdependence was low.
Resolving Disagreements Openly	Problematic. Disagreements existed and were manifested overtly but were not acknowledged or dealt with by leader.	Problematic. Disagreements existed but were not voiced. Conflict as manifested covertly and was not acknowledged or dealt with by the leader.	Yes. Disagreements were often discussed openly. Signs of covert conflict were not observed however resistance in the form of stalling and inaction was seen.	Problematic. Disagreements existed but were not voiced. Conflict was manifested covertly. Though easily recognisable it was not acknowledged or dealt with by the leader.

Table 6.1: Teamworking in Teams 1, 2, 3 and 4.

Despite the contextual dissimilarities between the two schools in this study, this research showed that problems with teamworking were more common than is acknowledged in teamworking literature. While the teams in one school (School A) were predominantly weak on teamworking, the study showed that it was possible for ineffective teams to exist side by side with more effective ones as was the case in School B, where Team 3 'teamworked' more effectively than Team 4. The problems faced by both schools were similar in nature, though not in effect. Combined with deficient team leadership, a contributory impediment to teamworking in School A was shown to be the inexistence of procedures throughout the school for staff performance management and review. In School B, where both effective and ineffective team leadership was observed, the physical environment in the form of the twin site complicated intra-team proximity and aggregation which in turn strengthened the impediments to team working.

6.4 Implications of the study

The single most important implication that this study has for practice is that it identifies the gap in team leaders' propositional knowledge on how teams should operate. Leaders' apparent inability to assess the effectiveness of their teams was a direct consequence of this lack. In order to close the gap, schools will need to develop ways of training managers about how to make teams work. Some of the methodological tools used in this study would be useful to managers seeking to understand their teams, as well as to individual team members seeking to increase their effectiveness within teams.

This study has the potential to raise the standard of teamworking in schools in two main ways. As seen in the lone case of UEV in Team 1, it is possible for interested teachers to proceed from identifying their team roles, to role-learning such that the unallowable weaknesses in their diagnosed roles could be balanced out and their team working skills improved. Team role awareness enables teachers to identify their interpersonal strengths and work to them. Awareness comes with knowledge of other team role types, which is invaluable in allowing teachers to manage their expectations and responses to those who they work with. Providers of team training courses for managers would benefit from looking at these findings the better to tailor the content

of their courses to respond to the context-relevant needs of the particular groups of people being trained.

The orthodoxy of the 'team' taxonomy is so well established in schools that school structures – faculties, departments, years, management - have been moulded around the notion. It has now come to be accepted as the norm to the extent that questions are no longer being raised as to its effectiveness in securing educational goals. The findings of this study could call the dominance of this team orthodoxy into question. What this study contributes to the discourse, is the painting in bold relief of a picture of how teams in real schools work and this does not seem to match with ideas of teamworking which team theory depicts.

The assumption within schools is that teams work better than individuals. The findings of this study would make useful reading to school managers minded to impose a team structure on groups of people who may not be well served by it. The questions it raises are profound and may sound subversive to some: For instance

- Given the constant time and workload pressures in schools, is it at all possible for teams - which require particularly time consuming inputs to work effectively – to operate in the manner which management literature prescribes?
- Do schools have the time and resources needed to train teachers to teamwork effectively, bearing in mind that the value of teamworking on improved pupil attainment is only just as tangential as throughput is to outcome? Would this time not be better spent on other ways of managing which have a more direct impact on the educational outcome for pupils?
- How would schools deal with a new orthodoxy which argues that maybe the team structure is not exactly suited to the goals which schools are there to pursue? Why can the units not be simply labelled 'groups' so that alternative more efficient ways of managing people - which do not require the time and skill levels that team management needs – be trialled so that middle belt leaders and teachers can be free to get on with the job of teaching?

- Does the fact of schools succeeding in achieving most of their goals in spite of defective teamworking mean that schools can do without teamworking? Does this mean that the aspiration to effective teamworking is unnecessary?

These and similar questions challenge the commonsensical acceptance of teamworking the way it is practised now and should result in types of thinking which may bring managers either to ditching the pretence of 'teamwork' altogether, or to rationalising their actions such that whatever extent of co-ordinated working which they end up practising, is well thought through and effectively deployed. This in turn raises questions as to the existence of effective alternative forms of joint work co-ordination in schools, other than by team working. By showing the reality of team working in these schools to be less than effective, this study invites stock taking with regard to the relevance of pervasive team structures to the business of teaching i.e. improving students' achievement and life chances (Ofsted, 2003). It also contributes to amplifying awareness in the educational research community that key aspects of educational management theory are failing to find fertile ground at the 'chalk face'.

6.5 Significance of the Study

As a case study which describes moments of social interaction in two specific contexts, this study is significant in its own right. However, this research derives particular significance in its predominant use of direct observation – as opposed to mediated forms of data collection such as interviews or questionnaires - to acquire evidence of the nature of team working in schools particularly in the areas of team role type (Belbin, 1988; Belbin 1993) team interaction and interdependence. It is one of very few studies in which Bales' (1950; 1955) interaction process analysis has been used to check role deployment within the context of two secondary comprehensives. It applies Belbin's and Bales' theories to two natural, live teams and evinces findings which help refine the reaches of both theories when applied to contexts such as schools.

The study is one more of a small number (Parry et al., 1998; Wallace, 2001) which attempt to question the application of the prescriptions of Education Management

literature in the area of teams and their management within schools, by revealing the gaps in embededness between educational theory and practice in particular contexts.

6.6 Avenues for Further Research

The most obvious way in which Schools A and B could be developed, is for the findings of this study to be used as the starting point for change in the way team members inhabit their roles as they interact. This could best be done as a form of action research which Lomax (1994) describes as an intervention in practice to bring about improvement. The interventions emanating from such action would

- Develop role type awareness in team members in order to achieve a conscious as opposed to an instinctive management of their interaction with others in the team context.
- Create and trial micro structures and processes within teams which would make interdependence more effective in team goal achievement.
- Train leaders in the various aspects of their role such that they become more effective in the way they manage intra-team work and relationships on the one hand, and the possible threats and opportunities prevalent in their organizational contexts, on the other.

Given the relationships which have developed with this researcher as a result of conducting this research, involvement in action research leading to improvements in the quality of teamworking in Schools A and B would be morally committed action - a requisite for action research - because it would reward the schools for their involvement with the initial research.

From the difficulties with verifying the extent to which team decisions were enacted in classrooms, it would be interesting to see an observation based study of team decision implementation by individual teachers in classrooms, outside the public domain. The quantity and extent of decision enactment outside the zone of policy and within the zone of practice would be an informative guide to the effectiveness of the team structure adopted so enthusiastically by most schools.

A further avenue for research emanating from a recurrent difficulty during this research, could focus on the extent to which the quality teachers' interactions and teachers' team working effectiveness are influenced by scarce non material resources, such as the lack of time or levels of energy. This could be developed to include the effects which the recently published workload directive has on teachers' task and outcome interdependence within teams.

During the conduct of this research, the inability of this researcher to 'confront' teachers and leaders with recordings of their behaviours such their own interpretations and 'voices' could be taken into account, was constant source of frustration. A biographical study of a small group of teachers and leaders, which allows them a 'right to reply' and charts their trajectory to improvement, would be a welcome sequel to the issues dealt with in this study.

6.7 Conclusion

This research has attempted to unpick the ways in which teams and their leaders deploy their roles and coordinate their actions as they work towards achieving collective goals. It has shown that while the team structure has become established in schools, significant gaps exist in the ways in which teachers deploy their team roles and organise their interdependence within teams. The study shows that key aspects of theory prevalent in management literature about the way in which teams should work are yet to be taken on board and applied by team leaders and their members. The picture which emerges is one of varying degrees of defective teamworking within the schools studied. The study shows time, teacher attitudes, team leadership and schools' organizational environments as accounting for why teamworking is defective within the middle belt teams scrutinized in this study. This study points to the re-examination of the value of the team structure to schools' outcomes on the one hand, and to the need for foregrounding the training of team leaders and members in team processes, on the other. It is only when the relevant aspects of team management theory are acquired and translated appropriately into practice that the teamworking aspirations which are embodied in the structural configurations of schools could become reality.

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APPENDIX A

RESEARCH TOOLS

1. Bales' System of Categories for Small Group Observation including their Frames of Reference

	Mental Set of the Observer	Observation Categories		Key[51]
A	**SOCIO-EMOTIONAL AREA** Positive Reactions	1	Shows solidarity, raises other's status, gives help, rewards.	F
		2	Shows tension release, jokes, laughs, shows satisfaction.	E
		3	Agrees, shows passive acceptance, understands, concurs, complies.	D
B	**TASK AREA** Attempted Answers	4	Gives suggestion, direction, implying autonomy for other.	C
		5	Gives opinion, evaluation, analysis, expresses feeling, wish.	B
		6	Gives orientation, information, repeats, clarifies, confirms.	A
C	**TASK AREA** Questions	7	Asks for orientation, information, repetition, confirmation.	A
		8	Asks for opinion, evaluation, analysis, expression of feeling.	B
		9	Asks for suggestion, direction, possible ways of action.	C
D	**SOCIO-EMOTIONAL AREA** Negative Reactions	10	Disagrees, shows passive rejection, formality, withholds help.	D
		11	Shows tension, asks for help, withdraws out of field.	E
		12	Shows antagonism, deflates other's status, defends or asserts self.	F

Bales (1950): The System of Categories Used in Observation and their Relation to Frames of Reference.[52]

[51] See Table 2 below for an expansion of this column.
[52] Adapted from Bales (1950:258).

2. **Key to Frames of Reference (Last Column of 1, above)**

Key Letter	Frames of Reference
A	Problems of Orientation.
B	Problems of Evaluation.
C	Problems of Control.
D	Problems of Decision.
E	Problems of Tension Management.
F	Problems of Integration.

3. Bales' Summary of Psychological Events in Small Groups[53]- Observation Form

	Interactional Category[54]	1	2	3	4	5	6	7	etc	Type Total
1	Shows Solidarity (+)									
2	Shows Tension Release (+)									
3	Shows Agreement (+)									
4	Gives Suggestion *									
5	Gives Opinion *									
6	Gives Information *									
7	Asks for Information (?)									
8	Asks for Opinion (?)									
9	Asks for Suggestion (?)									
10	Shows Disagreement (-)									
11	Shows Tension (-)									
12	Shows Antagonism (-)									
	Total Turns per Member									

Interactive Process Analysis Schedule.

[53] Culled from Bales (1950).

[54] The plus (+) sign denotes socio-emotional positive acts. The asterisk (*) denotes task relevant acts-giving. The question mark (?) stands for task relevant acts-asking questions. The minus sign (-) denotes socio-emotional negative acts. All four constitute the mental sets of he observer, proposed by Bales (1950).

APPENDIX B

RESEARCH TOOLS

Belbin Team Role Self- Perception Inventory[55]

1. TEAM ROLE DESCRIPTORS

Section 1: What I believe I can contribute to the team:

a. I think I can quickly see and take advantage of opportunities.

b. I can work well with a very wide range of people.

c. I can usually sense what is realistic and likely to work.

d. My capacity to follow through has much to do with my personal effectiveness.

e. My ability rests with being able to draw people whenever I detect they have something of value to contribute to group activities.

f. My technical knowledge and experience are usually my major asset.

g. I can offer a reasoned case for alternative courses of action without introducing bias or prejudice.

h. Producing ideas is one of my natural assets.

i. I am ready to face temporary unpopularity if it leads to worthwhile results in the end.

Total /10

Section 2: If I have a possible short coming in teamwork, it could be that:

a. I am not at ease unless meetings are well structured and controlled and generally well conducted.

b. My objective outlook makes it difficult for me to join in readily and enthusiastically with colleagues.

c. I find it difficult to lead from the front, perhaps because I am over-responsive to group atmosphere.

d. I am apt to get too caught up in ideas that occur to me and so lose

[55] Culled from Belbin (1981).

track of what is happening.

e. My colleagues tend to see me as worrying unnecessarily over detail and the possibility that things might go wrong.

f. I am sometimes seen as forceful and authoritarian if there is a need to get something done.

g. I am inclined to be too generous towards others who have a valid viewpoint that has not been given a proper airing.

h. I am reluctant to contribute unless the subject being discussed deals with an area I know well.

i. I have a tendency to talk too much once the group gets on to new ideas.

Total /10.

Section 3: When involved in a project with other people:

a. I can be counted on to contribute something original.

b. My general vigilance prevents careless mistakes and omissions being made.

c. I have and aptitude for influencing people without pressuring them.

d. I am keen to look for the latest in new ideas and developments.

e. I try to maintain my sense of professionalism

f. I believe that my capacity for judgments can help to bring about the right decisions.

g. I am always ready to back a good decision in the common interest.

h. I am ready to press for action to make sure that the meeting does not waste time or lose sight of the main objective.

i. I can be relied upon to see that all essential work is organized.

Total /10

Section 4: My characteristic approach to group work is that:

a. I have a quiet interest in getting to know colleagues better.

b. While I am interested in all views, I have no hesitation in making up my mind, once a decision has to be made.

c. I am not reluctant to challenge the views of others, or to hold to a minority view

myself.

d. I think I have a Talent for making things work once a plan has to be put into operation.

e. I have tendency to avoid the obvious and come out with the unexpected.

f. I am ready to make use of contacts outside the school itself

g. I bring a touch of perfectionism to any job I undertake.

h. I can usually find a line of argument to refute unsound propositions.

i. I can usually find a line of argument to refute unsound propositions.

j. I contribute where I know what I am talking about.

Total /10

Section 5: I gain satisfaction in my job because:

a. I enjoy analyzing situations and weighing up all possible choices.

b. I feel that I am using my special qualifications and training to advantage.

c. I like to find a field that stretches my imagination.

d. I feel in my element when I can give my task my full attention.

e. I am interested in finding practical solutions to problems.

f. I feel like I am fostering good working relationships.

g. I can meet people who may have something to offer.

h. I can get people to agree on a necessary course of action.

i. I can have a strong influence on decisions.

Total /10

Section 6: If I am suddenly given a difficult task with limited time and unfamiliar people:

a. I tend to read up as much as I can on the subject.

b. I would retain a steadiness of purpose in spite of the pressures.

c. I would open up discussions with a view to stimulating new thought and getting something moving.

d. I believe that I would keep cool and maintain my capacity to think straight.

e. I would find some way of reducing the size of the task by establishing what different individuals might best contribute.

f. I would feel like retiring into a corner to devise a way out of the impasse before developing a line.

g. I would be prepared to take a positive lead if I felt the group was making no progress.

h. My natural sense of urgency would help ensure that we did not fall behind schedule.

i. I would be ready to work with the person who showed the most positive approach.

Total /10

Section 7: With reference to the problems to which I am subject in working in groups:

a. I am apt to show my impatience with those who are obstructing progress.

b. I hesitate to get my points across when I run up against real opposition.

c. I am inclined to feel I am wasting my time and would do better on my own.

d. I am conscious of demanding from others the thing I cannot do myself.

e. I tend to get bored rather easily and rely on one or two stimulating members to spark me off.

f. My desire to ensure that work is properly done can hold up proceedings.

g. Others may criticize me for being too analytical and insufficiently intuitive.

h. I find it difficult to get started unless goals are clear.

i. I am sometimes poor at explaining and clarifying complex points that occur to me.

Total /10

2. INDIVIDUAL SCORING TABLE FOR BELBIN'S SELF-PERCEPTION INVENTORY

Section	A	B	C	D	E	F	G	H	I
1									
2									
3									
4									
5									
6									
7									

3. ANALYSIS SHEET FOR BELBIN'S SELF-PERCEPTION INVENTORY

Section	CW	CH	SH	PL	RI	ME	TW	CF	SP	Total
1	**C**	**E**	**I**	**H**	**A**	**G**	**B**	**D**	**F**	**10**
2	**A**	**G**	**F**	**D**	**I**	**B**	**C**	**E**	**H**	**10**
3	**I**	**C**	**H**	**A**	**D**	**F**	**G**	**B**	**E**	**10**
4	**D**	**B**	**C**	**E**	**F**	**H**	**A**	**G**	**I**	**10**
5	**E**	**H**	**I**	**C**	**G**	**A**	**F**	**D**	**B**	**10**
6	**B**	**E**	**G**	**F**	**C**	**D**	**I**	**H**	**A**	**10**
7	**H**	**D**	**A**	**I**	**E**	**G**	**B**	**F**	**C**	**10**
TOTAL										**70**

4. Belbin Team Role Types: Team Role Contributions and Weaknesses [56]

	Role Type	Team Characteristics	Allowable Weakness	Non Allowable Weakness
PI	**Plant**	Creative, Imaginative, Unorthodox. Solves difficult problems.	Ignores details. Too preoccupied to communicate effectively.	Strong 'ownership' of ideas when co-operation with others would yield better results.
RI	**Resource Investigator**	Extrovert, enthusiastic, communicative. Develops contacts.	Overoptimistic. Loses interest once initial enthusiasm has passed.	Letting clients down by neglecting to follow up arrangements.
CO	**Co-ordinator**	Mature, confident, a good chair person. Clarifies goals, promotes decision making, delegates well.	Can be seen as manipulative. Delegates personal work.	Taking credit for the effort of a team
SH	**Shaper**	Challenging, dynamic, thrives on pressure. Has the drive and courage to overcome obstacles.	Can provoke others. Hurts people's feelings.	Inability to recover situation with good humour or apology.
ME	**Monitor Evaluator**	Sober, strategic and discerning. Judges accurately.	Lacks drive and ability to inspire others. Overly critical.	Cynicism without logic.
TW	**Teamworker**	Co-operative, mild, perceptive and diplomatic. Listens, builds, averts friction. Calms the waters	Indecisive in crunch situations. Can be easily influenced.	Avoiding situations that may entail pressure.
IM	**Implementer**	Disciplined, reliable, conservative and efficient. Turns ideas into practical actions.	Somewhat inflexible. Slow to respond to new possibilities.	Obstructing change.
CF	**Completer**	Painstaking, conscientious, anxious. Searches out errors and omissions. Delivers on time.	Inclined to worry unduly. Reluctant to delegate. Can be a nit-picker.	Obsessional behaviour.
SP	**Specialist**	Single minded, self starting, dedicated. Provides knowledge and skills in rare supply.	Contributes only on a narrow front. Dwells on technicalities. Overlooks the big picture.	Ignoring facts outside own area of competence.

[56] culled from Belbin (1993)

APPENDIX C

DATA

Bales' Interactional Process Analysis Data Schools A and B

1. School A: Team 1 Pastoral

	Psychological Act	NE	DBE	HO	BKN	SD	BD	JN	NN	SE	UEV	TB	TN	SL	Type Total
1	Shows Solidarity (+)				1										1
2	Shows Tension Release (+)	1	1									1			3
3	Shows Agreement (+)			1	1			1					1		4
4	Gives Suggestion *			2		1	1		1	1					6
5	Gives Opinion *	1	1						1	1		2			6
6	Gives Information *											1			1
7	Asks for Information (?)	1	1		1			1	1			1			6
8	Asks for Opinion (?)														0
9	Asks for Suggestion (?)						1					2			3
10	Shows Disagreement (-)						1		1			1			3
11	Shows Tension (-)							1							1
12	Shows Antagonism (-)	1													1
	Total Utterances per Member	4	3	3	3	1	3	3	4	2	0	7	1	0	

Interactive Process Analysis Team 1 Pastoral: Meeting 1.

	Psychological Act [57]	NE	DBE	HO	BKN	SD	BD	UEV	TB	SL	TN	MDB	Type Total
1	Shows Solidarity (+)		2				1		2				5
2	Shows Tension Release (+)	1	1			1	1		3				7
3	Shows Agreement (+)		1	1		1	1		1				5
4	Gives Suggestion *				2		3	1					6
5	Gives Opinion *	1	1	2	2	3			1			1	11
6	Gives Information *	2	4	3	3	2			1	1		3	19
7	Asks for Information (?)		1	1	2				6			1	11
8	Asks for Opinion (?)				1			1	3				5
9	Asks for Suggestion (?)				1	1		1	1				4
10	Shows Disagreement (-)		2	3	1		2		3				11
11	Shows Tension (-)	2	3										5
12	Shows Antagonism (-)		2										2
	Total Utterances per Member	6	17	10	12	8	8	3	21	1	0	5	

Interactive Process Analysis Team 1 Pastoral: Meeting 2.

[57] JN, NN and SE were absent

	Psychological Act	NE	DBE	HO	BKN	SD	BD	JN	NN	SE	UEV	TB	TN	SL	Type Total
1	Shows Solidarity (+)	2		2	1	3	5	1	2	2		3	1	1	**23**
2	Shows Tension Release (+)		2			3	3		1			2			**11**
3	Shows Agreement (+)	4	2		2	1	1	1	2	1		3			**17**
4	Gives Suggestion *	1	1			2	5		2		3				**14**
5	Gives Opinion *	1				2	4	1	2			1			**11**
6	Gives Information *	2	3	3	5	3		3	4	3	1	3			**30**
7	Asks for Information (?)		3	1	1				2		8				**15**
8	Asks for Opinion (?)	1		1			1					3			**6**
9	Asks for Suggestion (?)					2			1			1			**4**
10	Shows Disagreement (-)				1			1	2			1			**5**
11	Shows Tension (-)														**0**
12	Shows Antagonism (-)	1							1						**2**
	Total Utterances per Member	**12**	**11**	**7**	**10**	**16**	**19**	**7**	**19**	**6**	**12**	**17**	**1**	**1**	

Interactive Process Analysis Team 1 Pastoral: Meeting 3.

Team Member	Meeting 1	Meeting 2	Meeting 3	Total Acts per Member	Comment
NE	4	6	12	**22**	
DBE	3	17	11	**31**	Team leader Team 2
HO	3	10	7	**20**	
BKN	3	12	10	**25**	
SD	1	8	16	**25**	
BD	3	8	19	**30**	
JN	3	/	7	**10**	Absent for meeting 2
NN	4	/	19	**23**	Absent for meeting 2
SE	2	/	6	**8**	Absent for meeting 2
UEV	0	3	12	**15**	
TB	7	21	17	**45**	Team Leader-Team 1
TN	1	0	1	**2**	
SL	0	1	1	**2**	
MDB	/	5	/	**5**	Team line manager. Is not normally a member of the team
Total Acts per Meeting	**34**	**91**	**138**	**263**	

Team 1 Pastoral: Overall Interactions by Members- Meetings 1, 2 and 3

Psychological Act	Meeting 1	Meeting 2	Meeting 3	Total per Category
Shows Solidarity (+)	1	5	23	**29**
Shows Tension Release (+)	3	7	11	**21**
Shows Agreement (+)	4	5	17	**26**
Gives Suggestion *	6	6	14	**26**
Gives Opinion *	6	11	11	**28**
Gives Information *	1	19	30	**50**
Asks for Information (?)	6	11	15	**32**
Asks for Opinion (?)	0	5	6	**11**
Asks for Suggestion (?)	3	4	4	**11**
Shows Disagreement (-)	3	11	5	**19**
Shows Tension (-)	1	5	0	**6**
Shows Antagonism (-)	1	2	2	**5**
Total Acts per Meeting	**34**	**91**	**138**	263

Team 1 Pastoral: Overall Interactions by Psychological Act- Meetings 1, 2 and 3

2. School A: Team 2 Departmental

	Psychological Act	NE	DBE	TN	KL	NNP	TB	GEF	Type Total
1	Shows Solidarity (+)				1		1		**2**
2	Shows Tension Release (+)								**0**
3	Shows Agreement (+)					1			**1**
4	Gives Suggestion *				2			1	**3**
5	Gives Opinion *		1		1				**2**
6	Gives Information *		3					1	**4**
7	Asks for Information (?)			1			1		**2**
8	Asks for Opinion (?)								**0**
9	Asks for Suggestion (?)	1						1	**2**
10	Shows Disagreement (-)		1						**1**
11	Shows Tension (-)	1	2						**3**
12	Shows Antagonism (-)	1							**1**
	Total Turns per member	**3**	**7**	**1**	**4**	**1**	**2**	**3**	**21**

Interactive Process Analysis. Team 2 Departmental: Meeting 1.

	Psychological Act	NE	DBE	KL	NNP	TB	GEF	TN	Type Total
1	Shows Solidarity (+)					1		1	**2**
2	Shows Tension Release (+)					2		1	**3**
3	Shows Agreement (+)				1	1			**2**
4	Gives Suggestion *			2		1		1	**4**
5	Gives Opinion *	1		1	1				**3**
6	Gives Information *	3	13	1			1		**18**
7	Asks for Information (?)			1		4		1	**6**
8	Asks for Opinion (?)								**0**
9	Asks for Suggestion (?)		1						**1**
10	Shows Disagreement (-)				2			1	**4**
11	Shows Tension (-)								**0**
12	Shows Antagonism (-)	1				1		1	**3**
	Total Utterances per Member	**5**	**14**	**5**	**4**	**10**	**1**	**6**	**44**

Interactive Process Analysis Team 2 Departmental: Meeting 2.

	Verbal Category	NE	DBE	TN	KL	NNP	TB	GEF	BX	Type Total
1	Shows Solidarity (+)	1					3		2	6
2	Shows Tension Release (+)				3	1			2	6
3	Shows Agreement (+)	1	2	2			3	1	2	11
4	Gives Suggestion *		5			2	5			12
5	Gives Opinion *	3		1		1	1	4	1	11
6	Gives Information *		7		1			4		12
7	Asks for Information (?)	1		1			3		1	6
8	Asks for Opinion (?)		5				2			7
9	Asks for Suggestion (?)	1		3		1				5
10	Shows Disagreement (-)	4	1		2	1	1			9
11	Shows Tension (-)			1			1	3		5
12	Shows Antagonism (-)	2						1		3
	Total Utterances per Member	**13**	**20**	**8**	**6**	**6**	**19**	**13**	**8**	**75**

Interactive Process Analysis Team 2 Departmental: Meeting 3.

Team Member	Meeting 1	Meeting 2	Meeting 3	Total Acts per Member	Comment
NE	3	5	13	**21**	
DBE	7	14	20	**41**	Team leader
TN	1	6	8	**15**	
KL	4	5	6	**15**	
NNP	1	4	6	**11**	
TB	2	10	19	**31**	
GEF	3	1	13	**17**	
BX	/	/	8	**8**	BX joined the team later on in the year.
Total Acts per Meeting	**21**	**45**	**93**	**159**	

Table 15: Team 2 Departmental: Overall Interactions by Members- Meetings 1, 2 and 3

Psychological Act	Meeting 1	Meeting 2	Meeting 3	Total per Category
Shows Solidarity (+)	2	2	6	**10**
Shows Tension Release (+)	0	3	6	**9**
Shows Agreement (+)	1	4	11	**16**
Gives Suggestion *	3	4	12	**19**
Gives Opinion *	2	3	11	**16**
Gives Information *	4	18	12	**34**
Asks for Information (?)	2	6	5	**13**
Asks for Opinion (?)	0	0	7	**7**
Asks for Suggestion (?)	2	1	4	**7**
Shows Disagreement (-)	1	4	9	**14**
Shows Tension (-)	3	0	4	**7**
Shows Antagonism (-)	1	3	3	**7**
Total Acts per Meeting	**21**	**48**	**90**	**159**

Team 2 Departmental: Overall Interactions by Psychological Act- Meetings 1, 2 and 3

3. School B: Team 3 Curriculum

	Psychological Act	NF	GT	NB	JB	QO	GO	CO	BE	DS	BH	Type Total
1	Shows Solidarity (+)					1		3		2	3	**9**
2	Shows Tension Release (+)	2		2					1	3	2	**10**
3	Shows Agreement (+)	3	2			1	4			1	1	**12**
4	Gives Suggestion *	1								6	4	**11**
5	Gives Opinion *	3			2			4	1	7	3	**20**
6	Gives Information *	2				1		3	2	8		**16**
7	Asks for Information (?)	1		1	2		5		1		3	**13**
8	Asks for Opinion (?)	4						2	1	3		**10**
9	Asks for Suggestion (?)	2	1			2			2	1		**8**
10	Shows Disagreement (-)					2		3	1	2	1	**9**
11	Shows Tension (-)					1			3		1	**5**
12	Shows Antagonism (-)	1		1	2				3			**7**
	Total Utterances per Member	**19**	**3**	**4**	**6**	**8**	**9**	**15**	**15**	**33**	**18**	**130**

Interactive Process Analysis Team 3 Curriculum: Meeting 1.

	Psychological Act	NF	GT	NB	JB	QO	GO	CO	BE	DS	BH	DD	Type Total
1	Shows Solidarity (+)									2			**2**
2	Shows Tension Release (+)								1	1	2	1	**5**
3	Shows Agreement (+)	1	1				1					2	**5**
4	Gives Suggestion *	1						2	2		2	4	**11**
5	Gives Opinion *							1	1				**2**
6	Gives Information *					3				3	3	10	**19**
7	Asks for Information (?)	1	3	1	2		1	2		2			**12**
8	Asks for Opinion (?)	2	2									4	**8**
9	Asks for Suggestion (?)		1								1	1	**3**
10	Shows Disagreement (-)											2	**2**
11	Shows Tension (-)												
12	Shows Antagonism (-)												
	Total Utterances per Member	**5**	**7**	**1**	**2**	**3**	**2**	**5**	**4**	**8**	**8**	**24**	**69**

Interactive Process Analysis Team 3 Curriculum: Meeting 2.

	Psychological Act	NF	JB	QO	GO	CO	BE	BH	DS	Type Total
1	Shows Solidarity (+)			2		1		2	3	**8**
2	Shows Tension Release (+)	1						2		**3**
3	Shows Agreement (+)		2			1	4	1	1	**9**
4	Gives Suggestion *	2		1	1	3	1		3	**11**
5	Gives Opinion *					1		1		**2**
6	Gives Information *	3				2		2	7	**14**
7	Asks for Information (?)	3	4	1	1	1				**10**
8	Asks for Opinion (?)	1	3	2		1		1	4	**12**
9	Asks for Suggestion (?)							1		**1**
10	Shows Disagreement (-)		1	2				1		**4**
11	Shows Tension (-)		3		1		1		1	**6**
12	Shows Antagonism (-)			2						**2**
	Total Utterances per Member	**10**	**13**	**10**	**3**	**10**	**6**	**11**	**19**	**82**

Interactive Process Analysis Team 3 Curriculum: Meeting 3.

Team Member	Meeting 1	Meeting 2	Meeting 3	Total Acts per Member	Comment
NF	19	5	10	**34**	
JB	6	2	13	**21**	
QO	8	3	10	**21**	
GO	9	2	3	**14**	
CO	15	5	10	**30**	
BE	15	4	6	**25**	
BH	18	8	11	**37**	
DS	33	8	19	**60**	
GT	3	7		**10**	Absent meeting 3
NB	4	1		**5**	Absent meeting 3
DD		24		**24**	Outside Speaker- present for 1 meeting only.
Total Acts per Meeting	**130**	**69**	**82**	**281**	

Team 3 Curriculum: Overall Interactions by Members- Meetings 1, 2 and 3

Psychological Act	Meeting 1	Meeting 2	Meeting 3	Total per Category
Shows Solidarity (+)	9	2	8	**19**
Shows Tension Release (+)	10	5	3	**18**
Shows Agreement (+)	12	5	9	**26**
Gives Suggestion *	11	11	11	**33**
Gives Opinion *	20	2	2	**24**
Gives Information *	16	19	14	**49**
Asks for Information (?)	13	12	10	**35**
Asks for Opinion (?)	10	8	12	**30**
Asks for Suggestion (?)	8	3	1	**12**
Shows Disagreement (-)	9	2	4	**15**
Shows Tension (-)	5		6	**11**
Shows Antagonism (-)	7		2	**9**
Total Acts per Meeting	**130**	**69**	**82**	**281**

Team 3 Curriculum: Overall Interactions by Psychological Act- Meetings 1, 2 and 3

4. School B: Team 4 Faculty

	Psychological Act	DJ	BH	EG	T W	BE	SN	TZ	CD	Type Total
1	Shows Solidarity (+)									
2	Shows Tension Release (+)		2							2
3	Shows Agreement (+)		2					2		4
4	Gives Suggestion *				5		4	1		10
5	Gives Opinion *				3	2	2	1		8
6	Gives Information *		6			2	2	1	1	12
7	Asks for Information (?)	3	4		1	4			1	13
8	Asks for Opinion (?)		3		1		1			5
9	Asks for Suggestion (?)		4		4					8
10	Shows Disagreement (-)		2	4	2	2		2		12
11	Shows Tension (-)		2			1		1		4
12	Shows Antagonism (-)			2			1		3	6
	Total Utterances per Member	**3**	**25**	**6**	**16**	**11**	**10**	**8**	**5**	**84**

Interactive Process Analysis Team 4 Faculty Meeting 1

	Psychological Act	**DJ**	**BH**	**EG**	**T W**	**BE**	**SN**	**TZ**	**CD**	**Type Total**
1	Shows Solidarity (+)	3	3	2			1	1		10
2	Shows Tension Release (+)		2							2
3	Shows Agreement (+)	4	2	2				2		10
4	Gives Suggestion *	2	3	1	1	1	2	2		12
5	Gives Opinion *	2		3		1	3	2		11
6	Gives Information *	6		2	1	4	3			16
7	Asks for Information (?)	2	5	5	1			1		14
8	Asks for Opinion (?)			1		1				2
9	Asks for Suggestion (?)		2							2
10	Shows Disagreement (-)	5		1	1	2				9
11	Shows Tension (-)		2	1			1			4
12	Shows Antagonism (-)									0
	Total Utterances per Member	**24**	**19**	**18**	**4**	**9**	**10**	**8**	**0**	**92**

Interactive Process Analysis Team 4 Faculty Meeting 2

	Psychological Act	DJ	BH	EG	T W	BE	SN	TZ	CD	Type Total
1	Shows Solidarity (+)	1		1			1			**3**
2	Shows Tension Release (+)				2	1			1	**4**
3	Shows Agreement (+)	2	1	2	3	2	2	1	1	**14**
4	Gives Suggestion *	1		2			3	5		**11**
5	Gives Opinion *			3	1	1			2	**7**
6	Gives Information *	9	7	4		4				**24**
7	Asks for Information (?)									**0**
8	Asks for Opinion (?)	3	2			2				**7**
9	Asks for Suggestion (?)	1	1						1	**3**
10	Shows Disagreement (-)			4	3	2			3	**12**
11	Shows Tension (-)	1	1	3	3			1		**9**
12	Shows Antagonism (-)		4	2	1	1		1		**9**
	Total Utterances per Member	**18**	**16**	**21**	**13**	**13**	**6**	**8**	**8**	**103**

Interactive Process Analysis Team 4 Faculty Meeting 3

Team Member	Meeting 1	Meeting 2	Meeting 3	Total Acts per Member	Comment
DJ	3	25	18	**46**	
BH	25	19	16	**60**	
EG	6	18	21	**45**	
TW	16	4	13	**33**	
BE	11	9	13	**33**	
SN	10	10	6	**26**	
TZ	8	8	8	**24**	
CD	5		8	**13**	Absent meeting 2
Total Acts per Meeting	**84**	**93**	**103**	**280**	

Team 4 Faculty: Overall Interactions by Members- Meetings 1, 2 and 3

Psychological Act	Meeting 1	Meeting 2	Meeting 3	Total per Category
Shows Solidarity (+)		10	3	**13**
Shows Tension Release (+)	2	2	4	**8**
Shows Agreement (+)	4	10	14	**28**
Gives Suggestion *	10	12	11	**33**
Gives Opinion *	8	11	7	**26**
Gives Information *	12	16	24	**52**
Asks for Information (?)	13	14	0	**27**
Asks for Opinion (?)	5	2	7	**14**
Asks for Suggestion (?)	8	2	3	**13**
Shows Disagreement (-)	12	9	12	**33**
Shows Tension (-)	4	4	9	**17**
Shows Antagonism (-)	6	0	9	**15**
Total Acts per Meeting	**84**	**92**	**103**	**280**

Team 4 Faculty: Overall Interactions by Psychological Act- Meetings 1, 2 and 3.

APPENDIX D

DATA

Belbin's Self Perception Inventory - Data Schools A and B

1. School A: Team 1 Pastoral

Team Member	IM	CO	SH	PL	RI	ME	TW	CF	SP	Dominant Team Role
NE[58]			13			15	12		27	Specialist
DBE	20		13			17			10	Implementer
HO	15					20	10			Monitor Evaluator
BKN		20		25		10			10	Plant
SD		20			20	15				Co-ordinator/ Resource Investigator
BD		20		10			30		10	Team worker
JN			10	30	20					Plant
NN	15		10					30	10	Completer/ Finisher
SE			21			12		10	5	Shaper
UEV			6		24	15			5	Resource Investigator
TB			25		20			10		Shaper
TN				10		10	30			Team Worker
SL		20				20		10		Co-ordinator /Monitor Evaluator
Totals	500	80	69	75	84	114	82	50	77	

Belbin SPI Team Role Data – Team 1 Pastoral.

[58] Staff members' initials have been codified to maintain their anonymity.

2. School A: Team 2 Departmental

Team Member	IM	CO	SH	PL	RI	ME	TW	CF	SP	Dominant Team Role
NE	13	2	7	5	7	3	12	4	17	Specialist
DBE	15		4	2		11	4	13	21	Specialist
TB	17	6	13	12		6		5	2	Implementer
KL			4	20	4	9	25	2		Teamworker
TN	14	3		2	3	6	20	7	9	Teamworker
GE	2	4	14	7	15		8	12	8	Resource Investigator
GEF	18	4	6		10	14	12	4	4	Implementer
NNP (not returned)										
Team Profile Totals	79	19	48	46	39	49	81	47	61	

Belbin SPI Team Role Data - Team 2 Departmental

3. School B: Team 3 Curriculum Co-ordination

Team Member	IM	CO	SH	PL	RI	ME	TW	CF	SP	Dominant Team Role
NF	17	8				18	12	11	4	Monitor Evaluator
GT	6	8		16	4	4	10	10	10	Plant
NB	17	13	5	2	4	2	21	4	2	Teamworker
BE	18	14	6				14	10	8	Implementer
QO	10			26	15	9		4		Plant
DS	18	4	10	8	6	8		8	8	Coordinator
CO	18	12	10	2	4	4	10	8	8	Implementer
BH	4	4	14	6	10	12	2	4	14	Shaper/Specialist`
Totals	108	63	45	60	46	57	69	59	51	

Belbin SPI Team Role Data - Team 3 Curriculum

4. School B: Team 4 Faculty

Team Member	IM	CO	SH	PL	RI	ME	TW	CF	SP	Dominant Team Role
DJ	21	10	9			4	8	10	6	Implementer
BH	2	7	10	9	16	9	6		11	Resource Investigator
EG	14	7	6		9	12	4	7	11	Implementer
TW		16		28	3	9	12		2	Plant
BE	10	5	5	2		17	14	4	13	Monitor evaluator
SN	14	5	4	7	8		13	18	1	Completer -Finisher
TZ		5	10	10	10	20	5	10		Teamworker
CD	30				10	10		10	10	Implementer
Totals	**91**	**55**	**44**	**56**	**56**	**81**	**62**	**59**	**54**	

Belbin SPI Team Role Data - Team 4 Departmental

APPENDIX E

Data Tables in Section 4 Referred to in Section 5

	Team 1: Pastoral Goals as Stated in School Development Plan	**Team Tasks**	**Frequency of Occurrence (out of 3 meetings) and Output**	
1.	To raise pupil attendance to 90%.	- the accurate annotation of attendance.	2	Action
		- how to manage punctuality.	1	Recommendations
		- administering rewards.	1	Suggestions
		- administering sanctions	3	Recommendations
2.	To improve pupil behaviour in and around school.	- monitoring pupils causing concern	3	Proposals
		- administering rewards and sanctions.	1	Suggestions
		-using the referral system.	1	Recommendations
		-organising form assemblies.	1	Action
3.	To raise pupil attainment.	-administering the tutorial programme.	3	Action
		- organising and supervising pupils.	1	Action
		- administering rewards.	2	Suggestions
		-contacting parents.	1	Suggestions
		- using the referral system.	3	Recommendations
4.	To Improve support for pupils with Special Educational Needs	- using the referral system.	1	Recommendations
		- monitoring, acting on, and reporting causes for concern.	3	Proposals

Table 4.3: Team1 Pastoral - Nature of Joint Work

	Team 2: Departmental Goals as Stated in School Development Plan	Team Tasks	Frequency of Occurrence (out of 3 meetings) and Output	
1.	Improve the quality of teaching.	-developing IT skills.	1	Action
		-learning teaching strategies.	3	Demonstration
		-moderating marking and levelling.	2	Action
		-entering pupils for exams.	1	Action
		-planning model lessons.	1	Plan
		-implementing schemes of work.	1	Recommendation
2.	Raise the attainment of boys at KS4.	-learning teaching strategies.	2	Suggestions
		-using the departmental support system.	1	Suggestions
		-organising the supervision rota.	1	Recommendation
		-reporting on pupils causing concern.	2	Action
		-auditing staff training needs	1	Action
		-learning teaching strategies.	2	Suggestions
		-using the departmental support system.	1	Suggestions
3.	Implement a departmental behaviour policy.	-administering rewards	1	Suggestions
		-supporting pupils with Special Educational needs.	2	Recommendations
		-discussing the supervision rota.	1	Plan
4.	Improve the school's assessment policy.	-discussing sample of pupils' work.	1	Action
		-moderating the grading of worksheets.	1	Action
		-using the marking protocol.	1	Action
		-learning to keep a mark book.	1	Suggestions
5.	Develop the use of rewards.	-designing a departmental rewards system	2	Action
		-organising departmental sanctions.	1	Proposals

Table 4.4: Team 2 Departmental - Nature of Joint Work

	Team 3: Pastoral Goals as Stated in School Improvement Plan	Team Tasks	Frequency of Occurrence (out of 3 meetings) and Output	
1.	To Implement the Key Stage 3 Strategy	-understanding the KS3 Strategy Framework.	1	Action. Plans. Training Presentations Recommendations.
		-completing the intervention audit. Conducting and moderating pupil book scrutiny	1	Training. Action. Recommendations
		-the three part lesson, teaching starters.	1	Training/Presentations Discussions.

Table 4.15: Team 3 Curriculum - Nature of Joint Work over 3 Meetings

	Team 4: Faculty Goals as Stated in School Improvement Plan	Team Tasks	Frequency of Occurrence (out of 3 meetings) and Output	
1.	Improve the quality of Teaching and Learning.	-Arranging rotas for behaviour support.	1	Discussions. Decisions.
		-moderating marking and levelling.	2	Action. Recommendations
		-agreeing course work criteria.	1	Action. Training. Decisions
		-reviewing schemes of work.	2	Planning. Discussions. Decisions.
2.	Raise the attainment of at KS3.	-learning teaching strategies.	2	Training. Planning. Recommendations
		-Arranging lesson observation dates	1	Decisions
		-scrutinising pupils' work.	1	Action Recommendations
		-reporting on pupils causing concern.	2	Decisions Action
		-organising training	1	Decisions

Table 4.16: Team 4 Faculty - Nature of Joint Work over 3 Meetings.

	Meeting 1	Meeting 2	Meeting 3
By ordinary members	7	9	1
By members with posts of responsibility elsewhere	9	11	8
By the team leader	4	6	2
Total per Meeting	**20**	**26**	**11**

Table 4.7: Team 1 Meetings -The Pattern of Interruption

	Meeting 1	Meeting 2	Meeting 3
By ordinary members	0	0	7
By members with roles of responsibility elsewhere	2	1	6
By the team leader	3	0	3
Total per meeting	**5**	**1**	**16**

Table 4.10: Team 2 Meetings – The Pattern of Interruptions

Category	Percentage by Psychological Act Cluster.
Socio-emotional Area: Positive Reactions	17.5%
Task Area: Attempted Answers	39.6%
Task Area: Attempted Questions	19.2%
Socio-emotional Area: Negative Reactions	23.2%

Table 4.22: Team 4 – Breakdown of Psychological Acts

Frames of Reference	Team 1	Team 2	Team 3	Team 4
Problems of Orientation	**31%**	30%	30%	29%
Problems of Evaluation	15%	15%	**19%**	15%
Problems of Control	14%	**17%**	16%	16%
Problems of Decision-making	17%	18%	15%	**22%**
Problems of Tension Management	10%	9%	10%	10%
Problems of Integration	**13%**	11%	10%	9%

Table 4.25: Comparative Interactional Analysis by Frames of Reference